

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

No. MPM/MAN/31-ORI/BHU/2016-17

Plot No. 149, Pokhariput  
Bhubaneswar – 751 020  
Date: 20.03.2017

To

✓ Shri Debraj Meher, Mine Owner,  
At/P.o- Chichaiguda, Via- Junargarh,  
Dist- Kalahandi, Odisha- 766014

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

Ref: - i) Your letter No. Nil dated 27.02.2017.  
ii) This office letter of even no. dated 02.03.2017.  
iii) This office letter of even no. dated 02.03.2017 addressed to Director of Mines, Government of Odisha copy endorsed to you.

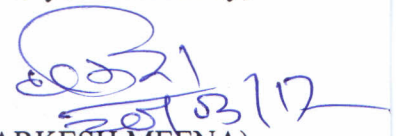
Sir,

This has reference to the letter cited above on the subject. The draft of Review of Mining Plan along with Progressive Mine Closure Plan (PMCP) has been examined in this office based on site inspection carried out on 06.03.2017 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 along with Progressive Mine Closure 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 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 modified copies of the Review of Mining Plan along with Progressive Mine Closure Plan. It may be noted that no extension of time in this regard will be entertained and the Modification of Mining Plan along with Progressive Mine Closure 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. The document submitted as Modification of Mining Plan is actually a Review of Mining Plan as Mining Plan approved on dated 03.05.2000 is valid for entire period of the Mining Lease i.e. up to 24/02/2022 (as per executed lease deed), until or unless the supplementary lease deed/any other order for extended period as per MMDR Amended act 2015 has not yet been executed by State Government. Hence, on cover page as well at other places of the document needs to be rectified accordingly. Hence, the document should be submitted under rule 17 of MCR, 2016 instead of as mentioned rule 15(4) of MCR 2016.
2. The document title shall also include the Progressive Mine Closure plan submitted under Rule 23 of MCDR, 2017.
3. Qualification and experience certificate as required to prepare Mining Plan/Scheme of Mining as per rule 15 of MCR, 2016 to be submitted in respect of Qualified Person.
4. The name of the mineral mentioned should exactly same as per the executed lease deed. Further, copy of letter of Registration number IBM/57/2011 to be enclosed.
5. Some of the points as mentioned in the appraisal of Mining Plan format-2014 has been not reflected in the text.
6. CCOM circular no. 2/2010 and its addendum regarding geo-reference mining lease map and ML boundary pillars to be implemented. The GPS coordinate of all the boundary pillars may be mentioned in text as well as in surface plan for better referencing of lease area. The basis for lease coordinate range mentioned needs to be given (page2 and 3).
7. In introduction describe about the consent to operate and other statutory clearance. The relevant document to be enclosed. The extent and nature of surface right being held by the Lessee to carry out various mining activities be indicated. Further, the details about other ML/PL area held by lessee also to be given along with documentary evidence.
8. Page 3: the complete lease area is mentioned as Govt. Waste land, which is not matching with the land schedule given in the Lease deed. Verify and rectify.
9. Para 3.3: It was approved to carry out two number of trial pits during 2012-13, however, in review same has mentioned as Nil. Further, the approved quantity of waste generation mentioned also not matches with the approved document. Verify and rectify.
10. Para3.3: The gist of status and compliance of violation pointed out during last scheme period to be given in tabulated form.
11. Grammatical mistakes are found to exist at many places, which need to be corrected.

**GEOLOGY:**

12. Briefly describe the topography, drainage pattern, vegetation, climate, rainfall data of the area applied/mining lease area. Further, Brief descriptions of Regional Geology with reference to location of lease/applied area.
13. Page9: The details like rock type encountered, location, Iolite mineralization etc. to be given for each trial pit along with documentary evidence. Further, details of three trial pits have been mentioned in text part, however, four trial pit have been shown in geological plan. Verify and rectify.
14. An amount of Rs. 15000 has been mentioned toward exploratory expenditure. The documentary evidence in respect of same to be given.
15. 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.
16. The reserve and resource have not been assed as per Minerals Evidence of Mineral Contents Rule,2015 (MEMC, rule). Hence, same needs to be revised as per MEMC, Rule 2015. Geological explorations limit i.e. G2 boundary along with UPL may also be revised accordingly. G2 boundary

may be depicted on geological plan. Further, Specific date to be mentioned on which Reserve & resource is estimated.

17. 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.
18. 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.
19. 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.
20. Some of the points as indicated in Geology and Exploration Chapter of "IBM manual for Mining Plan appraisal-2014" are not attended.

#### **MINING:**

21. Para A.a: Briefly describe the existing as well as proposed method for excavation with all design parameters indicating on plans /sections.
22. The year-wise tentative Excavation in Cubic Meters indicating development, ROM, pit wise as per IBM manual appraisal of Mining Plan 2014 has not given. Table 16: the total quantity of waste mentioned need to be described.
23. Para 19: It is mentioned that there are five quarries in lease area however, during field visit it is observed that there is only one quarry in lease area. Further, the dimension of the quarry as mentioned does not match with the actual dimensions of the quarry. Verify and rectify.
24. The length, width, top & Bottom mRL, number of benches as mentioned on page 27 & 67 does not match with the surface plan. Verify and rectify.
25. Location of mine workings, dump working, sub-grade dumping etc. proposed has not been referred by grid lines in text part of documents.
26. Page 20: Table 15: Surface area is mentioned, which is actually x-sectional area. Verify and rectify. Further, development proposal need to be modified in view of the change in Geological plan, section and UPL.
27. Total Reserve of the iolite is estimated to around 274.032 Kg and excavation proposal of 274.032 Kg of iolite has been given for current review of Mining Plan (2017-18 to 2021-22) and for conceptual period there will be no reserve of iolite. Hence, a undertaking may be submitted that FMCP will be submitted by lessee as per Rule 24 of MCDR, 2017.
28. Post mining land use at final/conceptual mining stage to be described.
29. Mine Drainage: a) Minimum and maximum depth of water table based on observations from nearby wells/water bodies to be given. b) Indicate maximum and minimum depth (mRL) of Workings. c) Quantity and quality of water likely to be encountered, the pumping arrangements and places where the mine water is finally proposed to be discharged. d) 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.
30. 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**

31. 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.
32. Dump plan and section need to be given separately. Method of waste dumping should be in retreating method instead of advancing in view of protection of the environment. 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.

33. 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.
34. 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.
35. 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:**

36. Describe briefly the requirement of end-use industry specifically in terms of physical and chemical composition. Give brief requirement of intermediate industries involved in upgradation of mineral before its end-use.

#### **PROGRESSIVE MINE CLOSURE PLAN**

37. It is mentioned that the parameter to verify the Quality of Air, Noise Level etc. are well within the permissible limit, however, the documentary evidence in respect of same has not given.
38. In Para "Disaster Management and Risk Assessment:", risk analysis of different mining operations and safety management plan needs to be given. Also, briefly describe the capability of lessee to meet such eventualities and the assistance to be required from the local authority may also be described. The name of officials along with telephone number may be given; responsible to take appropriate action during such eventualities.
39. The Financial assurance need to be revised as per rule 27 of MCDR, 2017.

#### **FEASIBILITY STUDY REPORT:**

40. 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:  
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. 7.5 meter safety Zone needs to be mark on all the plans and sections. 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. Date of observation of Magnetic Meridian should be given on all plans except Khasra Plan.
45. Surface Plan: 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.
46. Forest area, Non Forest area, Surface right acquired area etc. should be marked clearly over concern plan and section.
47. Color code given for different features in plans to be given same in sections.

48. **Geological Plan & Section:** The color code/hatching used to display various lithologies should be same in plan and section. Geological plan need to be revised as discussed during field visit. Direction along which geological section have been drawn to be depicted on the sections.
49. **Environment Plan:** All existing surface features beyond the 60m of ore block area boundary to be shown in detail including permanent features present near to ore block area. Monitoring stations at the strategic points in core & Buffer zone for different environmental components should also be shown over this plan.
50. **Page 3:** The number of toposheet mentioned in text and key plan does not match with each other. Verify and rectify.
51. **Page 4:** it is mentioned that state authenticated GPS M.L boundary Map submitted as Plate II, however, same has not submitted. Verify and rectify.

**ENCLOSURE:**

52. 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.
53. 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.
54. 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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