



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

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No. MPM/MAN/28-ORI/BHU/2016-17

Plot No.149, Pokhariput,  
Bhubaneswar,  
Odisha-751 020.  
दिनांक / Date: 29.06.2017

To

**Shri Ghanashyam Agrawal,  
(Mining Lessee), Village-Dedar,  
P.S-Junagarh, Dist-Kalahandi,  
Odisha, Pin- 766 014.**

Sub: Approval of Modification of Mining Plan along with Progressive Mine Closure Plan of Dedar Semiprecious Stone (Iolite) Mine over an area of 9.5ha in Kalahandi district of Odisha of Shri Ghanashyam Agrawal submitted under Rule-17 of MCR'2016.

Ref: - i) Your letter no. 1279 dated 16.02.2017.  
ii) This office letter of even no. dated 21.02.2017.  
iii) This office letter of even no. dated 22.02.2017 addressed to the Director of Mines, Govt. of Odisha, copy endorsed to you.  
iv) This office letter of even no. dated 20.03.2017.

Sir,

This has reference to the letters cited above on the subject. The draft Modification 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 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 Modification 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 Modification 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 Modification of Mining Plan. It may be noted that no extension of time in this regard will be entertained and the Modification 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 in respect of Dedar Semi-precious Stone (Iolite) Mine of Shri Ghanashyam Agrawal in Kalahandi district of Odisha State.**

Date of Inspection: 06/03/2017

**GENERAL:**

1. The rule position mentioned on cover page and in text needs to be rectified as per MCR, 2016.
2. The rule position as per MCDR, 2017 to be mentioned on cover page and in text for PMCP submitted in instant document.
3. The period of lease as per executed lease deed to be mentioned in introduction chapter.
4. The document may be renamed as "Review of mining plan" as validity of approved mining plan is up to the lease period i.e. 13/07/2021.
5. 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.
6. Page 3: The period of lease expiry should be mentioned as per executed lease deed.
7. 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. The coordinate of all the boundary pillars in latitude and longitude as well as in UTM to be given.
8. Page 4: the entire lease area is mentioned under Government waste land, however, from land schedule of lease deed it is observed that lease area is falling under some other category. Verify and rectify.
9. Para 3.3: The review of approved proposal to be given for only last scheme period. In approved document proposal has been given for period 2012-13 to 2015-16, however, in review quantity of excavation, OB etc mentioned for the year 2011-12. Verify and rectify.
10. Para 3.3: The gist of violation pointed out and its compliance to be given for entire previous scheme period i.e. 2011-12 to 2015-16.
11. Para 3.5: The details of suspension and lapsing by various statutory authority to be mentioned in this para along with documentary evidence.
12. Some of the points as mentioned in the appraisal of Mining Plan format-2014 has been not reflected in the text.
13. 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.
14. Grammatical mistakes are found to exist at many places, which need to be corrected.

**GEOLOGY:**

15. Topography: The highest and lowest altitude of the lease area to be mentioned. Further, the regional stratigraphic succession to be given. Also briefly describe about drainage pattern, vegetation, climate, rainfall data of the lease area.
16. The reserve and resource have not estimated as per Minerals Evidence of Mineral Contents Rules 2015. Hence, reserve and resource estimation may be revised as per Mineral Contents Rules 2015. Accordingly the ultimate pit limit to be modified. Para J: A summary of lease area explored as per UNFC norms indicating G1, G2, etc. should be given in the following format.

Sl. No.	Name of the Mineral	Lease area (Ha)	Lease area explored as per UNFC norms (in Ha.)				Remarks/Comments including reasons for not carrying out the exploration as per UNFC norms.
			C=D+E+F+G				
A	B	C	G1 Level	G2 Level	G3 Level	Other Lease area/Unexplored area	H
1							

17. Area explored under different level of exploration may be marked on the geological plan and UNFC code for area considered for different categories of reserve/resources estimation may also be marked on geological cross sections.

18. Para J: The details like total mineralized area, area explored under different UNFC category etc. 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. Exploration proposal should be given for entire lease area and the same should be completed within this review 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.
20. Page 13: It is mentioned on page that an amount of 15000 thousand have been spend for drilling; however, details of same have not been given in instant document. Further, no mining activity has been carried out in lease area since long, hence, the commencement of drilling activity to be justified.
21. Para K: Briefly described about the resource estimation. Total Geological Resource and minable Reserve, Resource blocked under Safety Zone, bench etc. to be given in separate table.
22. The quantity of reserve and resources mentioned in table presented on page 19 does not match with the quantity mentioned in table presented on page 20. Verify and rectify.
23. Some of the points as indicated in Geology and Exploration Chapter of "IBM manual for Mining Plan appraisal-2014" are not attended.

### MINING:

24. Excavation has been proposed with the deployment of the machineries. Hence, the category of the mines to be revised as per MCDR, 2017.
25. The first year proposal i.e. 201617 may be removed from the document as the year 2016-17 has already been passed. Accordingly proposal of remaining year to be revised.
26. All the tables as given in the manual of appraisal of Mining plan 2014 to be given.
27. The proposed location of processing of Iolite bearing material to be indicated on the plan and the sections.
28. Page 24: It is mentioned that there are five quarries in the lease area. Needs to be verified and justified. Further, the dimensions of the quarry mentioned on same page are not matching with surface plan. Verify and rectify.
29. It seems to have some calculation error quantity of Iolite, Stripping ratio, sectional area etc. in table presented on page 25 and 26. Verify and rectify. Accordingly remaining tables of the chapter to be modified.
30. Page 29: it is mentioned that Quarry -1 will be expanded towards north during plan period. However, from plan and section it is observed that that there is no proposal of excavation in Quarry-1. Very and rectify. The category of mine as per MCDR 2017 to be mentioned.
31. Location of mine workings, dump working, sub-grade dumping etc. proposed has not been referred by grid lines in text part of documents.
32. Development proposal need to be modified in view of the change in Geological plan, section and UPL. Specific proposal for stabilization of existing dumps, by plantation, coir matting etc. should be given.
33. Post mining land use at final/conceptual mining stage to be described.
34. 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. The details like availability of waste material and the quantity required to backfill the void and rehabilitation etc. to be given.
35. The quantity of Sub-grade to be generated during conceptual period and its utilization and future planning for beneficiation may be given.
36. **Mine Drainage:** a) Minimum and maximum depth of water table based on observations from nearby wells and water bodies to be given. Maximum and minimum depth of Workings to be given. Quantity and quality of water likely to be encountered, the pumping arrangements and places where the mine water is finally proposed to be discharged. 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.

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

37. 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 removed, however, location of dumping of same has not been depicted/mentioned.
38. Para b: There are two waste dumps in the lease area, however, the details of only one dump has been mentioned in the document. Further, the selection of dumping site to be justified.
39. Para C: 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.
40. 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.

## **USE OF MINERAL AND MINERAL REJECT:**

41. Give brief requirement of intermediate industries involved in upgradation of mineral before its end-use.
42. Give detail requirements for other industries, captive consumption, export, associated industrial use etc.
43. Give details of processes adopted to upgrade the ROM to suit the user requirements.

## **PROCESSING OF ROM AND MINERAL REJECT**

44. Breakup to be given for quantity (cum per day) of water required for mining and processing and sources of supply of water, disposal of water and extent of recycling. Water balance chart may be given.

## **PROGRESSIVE MINE CLOSURE PLAN**

45. Financial assurance to be revised as per rule 27 of MCDR, 2017 and needs to be submitted. Proposal of green belt development/plantation to be given in entire safety zone.
46. Mitigation measures of impacts associated with mining i.e. mainly related to air, water, noise, vibration, land, aesthetics etc. are not given properly. The same to be elaborated.
47. Page 42: it is mentioned that mine out land will be backfilled; however, no such proposal has been given in instant document. Verify and rectify.
48. Summary of year wise proposal of progressive reclamation in tabulated form as per table given in the manual appraisal of Mining plan 2014 to be given.

## **PRE-FEASIBILITY STUDY REPORT:**

49. 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 considering following points:  
Available reserve and resource, Capital investment, Production and transportation cost, royalty and other taxes, Cash flow forecast, Sensitivity studies, Sale Price, Cost benefit analysis, Closure cost and Rehabilitation cost etc. it should be justified that mine is technically and economically viable.

## **PLATES:**

50. 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.

51. 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 OF Odisha and found to be corrected.
52. Wind direction may show through wind rose diagram in key plan and environmental plan
53. Surface Plan: Forest area, Non Forest area, Surface right acquired area etc. should be marked clearly over concern plan and section.
54. In Quarry 2, 3 benches have been shown, however, during filed visit only one bench has been observed. Verify and rectify.
55. Information of boundary pillars in UTM coordinates as well as in Latitude and longitude of all ML boundary points should be depicted in tabulated form on surface plan.
56. 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. Further, ultimate pit limit to be shown in all the plans and sections.
57. Page 13: it is mentioned that surface plan is prepared on a grid of 20 meter, however same is observed on a grid interval of 50 meter. Verify and rectify.
58. The direction along which the different sections have been created to be indicated on sections.
59. Date of observation of Magnetic Meridian should be given on all plans except Khasra Plan.
60. **Geological plan and Section:** The structural details like Dip, Dip direction and Strike etc. of the lease area have not shown adequately on the geological plan.
61. The entire proposed feature like BH, trenches and pits etc. to be depicted year wise on plan and sections. Ultimate pit limit to be marked on geological plan.
62. **Development Plan and section:** the details of all exploration, boundary of G1/G2/G3, Ultimate pit limit etc. to be shown.
63. A separate dump plan and section to be submitted indicating year to yere development of the dump i.e. bottom RL, top RL, height and spread of the dump etc.
64. Few more conceptual sections need to be submitted.
65. Environment Plan: Monitoring stations at the strategic points in core & Buffer zone for different environmental components should be shown over plan and same to be mentioned in text.
66. **Reclamation plan:** Year wise progress of dumping, stacks, afforestation to be shown using different colour codes for easy understanding.

**ENCLOSURE:**

67. It is mentioned that lease deed is annexed as annexure-I, however, same is not annexed. The copy of lease deed to be enclosed.
68. The copy of order of lapsing of lease to be enclosed.
69. The copy of the circular as mentioned on page 1 to be enclosed (circular number 11011/3/MMDR 15 and 31 MM/2015-CCOM dated 12/06/2015).
70. The experience and qualification certificate of QP as required under MCR, 2016 for preparation of Review of Mining Plan to be enclosed.
71. 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. Further, signature proof of QP may be enclosed.
72. 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.
73. Few photograph of the Boundary pillars, present land use to be attached.  
In view of above, wherever necessary correction in text, tables, plan and sections required to be made.

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