



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. MP/A/09-ORI/BHU/2021-22

Date: 13.07.2021

सेवामे

The Director,
M/s Kalinga Enterprises Pvt Ltd,
C-4/5, Civil Township,
Rourkela, Dist- Sundargarh,
Odisha-769004

विषय: Approval of Mining Plan of Jagdalpur Graphite Block Mine along with Progressive Mine Closure Plan (PMCP), over an area of 17.863 ha in Rayagada district of Odisha State, submitted by M/s Kalinga Enterprises Pvt Ltd under Rule 16 of MCR, 2016.

संदर्भ: - i) Your letter No. KEPL/GL/21-22/01 dated 28.06.2021 received on 01.07.2021.
ii) This office letter of even no. dated 01.07.2021.
iii) This office letter of even no. dated 01.07.2021 addressed to Director of Mines, Government of Odisha copy endorsed to you.

महोदय,

This has reference to the letter cited above on the subject. The draft Mining Plan along with Progressive Mine Closure Plan (PMCP) has been examined in this office based on site inspection carried out on 07.07.2021 by Shri S K Mohapatra, Senior Mining Geologist. The deficiencies observed are enclosed herewith as Annexure- I.

You are advised to carry out the necessary modifications in the draft 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 in USB Pendrive/Flash drive (text in a single MS Word file, Annexure in PDF and the drawing/plates in Auto CAD compatible format or JPG format in resolution of 100x100 pixels should be submitted on same USB Pendrive/Flash drive)** within 7 (Seven) 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 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 final copies of the Mining Plan. It may be noted that no extension of time in this regard will be entertained and the 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.

भद्रदीय,
13/07/21
(हरकेश मीना)

क्षेत्रीय खान नियंत्रक

Copy for kind information and further necessary action to Shri B K Mahapatra, M/s Gems Projects Pvt Ltd, 1236/2 Lajpat Nagar, Near Lala Lajpat Rai School, Pundag, Argora, Ranchi, Jharkhand-834004.

(हरकेश मीना)
क्षेत्रीय खान नियंत्रक

Scrutiny comments on examination of Mining plan along with Progressive Mine Closure Plan of Jagdalpur Graphite Block over an area of 17.863 Ha. in village Jagdalpur, Tehsil Muniguda, Rayagada District of Odisha State of M/s. Kalinga Enterprises Pvt. Ltd.

GENERAL POINTS:

1. All the headings as mentioned in the IBM Manual Appraisal MP 2014 should be furnished in all chapters in the text. All the text, tables and annexures to be properly indexed/ numbered/ paged and signed by qualified persons. Correct table reference number to be mentioned at all relevant places. All the certificates/annexure should bear signature with date. Necessary corrections need to do at all relevant places in the document.
2. On cover page, complete address of the applicant along with contact number and email address needs to be furnished. The same also needs to be furnished all other places of the text document.
3. In the introduction chapter a brief history of the auctioned block to be given depicting all instances with documentary evidence as annexure from the bid details, auction process, the final price offer details as per Mineral Auction rule 2015 and all other instances to as on date in chronological order with synopsis of the lessee. The details of Surface right area granted needs to be furnished with documentary evidences.
4. The experience certificate of the qualified person has not furnished in the text document. The experience certificate of the qualified person should be clearly stated working in a supervisory capacity in the field of mining as per the provision of rule 15(b) of Mineral (Other than Atomic and Hydro carbon of Energy minerals) Concession Rules, 2016. The RQP registration number, date of grant and validity furnished in the text needs to be removed.
5. Lessee is a company. Hence, all certificates, undertakings, consent letter etc. should be signed by the nominated owner only. Extract from the minutes of the Board of director meeting with list of Board of Directors, their phone nos. address and declaration of nominated Owner to be furnished. Name of the nominated owner should be furnished under name of the applicant.

GEOLOGY AND EXPLORATION

6. The topography, drainage pattern, climate & rainfall data, regional geology and structural features of the area have not been properly described in the line of geological report as discussed during field. All the geological parameters should be furnished as per geological report.
7. The copy of the geological report along with all plans and sections & annexure, provided by the State Govt. along with the block summary report also needs to be submitted as annexure with the text document.
8. The geological plan and sections needs to be prepared as per the geological plans and sections provided by the State Govt. during the auction process. The safety barrier shown all along the Canal and Nala passing through the lease area needs to be furnished as per the extant provisions rule 12(d) of Mineral (Other than Atomic and Hydro carbon of Energy minerals) Concession Rules, 2016. Accordingly geological plan and sections need to be re drawn, UPL needs to be revised and subsequent reassessment of the resources/ reserves has to be carried out as per the extant provision of Mineral (Evidence of Mineral Contents) Rules 2015 with nomenclature of proper UNFC codes. Accordingly necessary corrections to be done at all relevant places in the text document and plates.

9. In page no 20, it has been furnished that thirteen (13) numbers of cross sections are drawn, where as in geological plan and sections twelve (12) number of cross sections are drawn. The same needs to be rectified.
10. The proposed exploration programme needs to be furnished strictly as per the extant provisions of Part III of Mineral (Evidence of Mineral Contents) Rules 2015 and as per provision of rule 12(4) of MCDR2017. The complete lease area should be proposed to cover under exploration under G1 level up-to end of mineralization. Further wherever the bore holes terminated in mineralized zone should be proposed to prove up-to the end of mineralization.
11. In page no 21, table furnished; the lease area explored under various categories is not correct, the same needs to be rectified properly.
12. The parameters considered for resource/reserves estimation and other relevant information needs to be mentioned exactly as per from Geological report supplied from state government.
13. A revised section wise and level wise calculation sheet to arrive at the resource and reserve quantities to be furnished in text in line to the comments as cited at sl. no. 8 and 9 above.
14. A revised back up calculation along with grade for blocked resources under various modifying factors needs to be provided in both pre-feasibility study report and in text, in line to the comments as cited at sl. no. 8 and 9 above.

MINING

15. Justification for site selection for mining during the proposed plan period has not been furnished. Proposed method of mining has not been furnished in light of development proposal i.e. annual production capacity, nos. of pits proposed for production, site of waste dump and other mine design parameters. The development proposals need to be carried out on the revised geological plan and section in line to the comments as cited at sl. no. 8 and 9 above.
16. The bulk density and recovery factor for the production proposal should not differ from the bulk density and recovery factor considered for resource/reserve estimation of the Geological report supplied from State Government. The same needs to be rectified accordingly.
17. Parameters for year-wise development proposal viz. bench height, width, bench slope angle, name of the section along which development has been proposed, direction of advancement, top RL, bottom RL, quantity of ROM, generation of waste, stripping ratio, etc should be furnished in tabular form under each year-wise development proposal.
18. The location of the ramps/ haulage road needs to be shown in all the development plans & sections.
19. The section wise and level wise calculation sheet to arrive at the annual proposed production quantities and generation of waste to be furnished in separate tables.
20. A detail indicating the boundary extents of the ultimate pit limit, slope angle, bottom pit limit needs to be furnished.
21. Detailed calculation of top soil and waste generated during plan period and conceptual period, area required for disposal, manner of disposal, no of terraces, height of each terrace, protective measures required to be furnished with proper calculation and should be reflected in respective plan & sections.
22. Extent of mechanisation needs to be recast properly duly supported with proper calculation sheet in view of the revised production proposals scenario.

23. In page 42, the life of mine has to be recalculated providing all the details. Conceptual Mine planning up to the end of lease period taking into consideration the present available reserves and resources. The following format may be used for showing the detail calculation for life of mine

Total available Reserve and Resource	
Production during five years	
Balance reserve and resource for conceptual period	
Average production per annum	
No of years production will be carried out during conceptual period	
Life of Mine	

24. In pursuant to the order dated 14.01.2020 passed by MoM, GoI, consequent up on the order dated 08.01.2020 of the Hon'ble Apex Court passed in W.P.(C) No. 114/2014, the lessee shall carryout "regrassing in mining area after closure of mines". Accordingly proposal has not been submitted in conceptual planning, conceptual plan and sections.

MINE DRAINAGE:

25. In page 45, the information pertaining to maximum depth of workings may be provided in the tabular format below.

Name of the Quarry	Existing depth in mRL		At the end of plan period (mRL)		At the end of conceptual period (mRL)	
	Top	Bottom	Top	Bottom	Top	Bottom
Pit No						

26. The details of construction of check dams/ settling tanks etc. shall be given along with their design in the chapter on mine drainage. The mode of disposal of surface run-off water shall be discussed indicating the schematic route showing its discharge with proposed provisions of check dams/ settling tanks/ water quality monitoring stations etc. The proposal shall also to be shown in the reclamation plan.

STACKING OF MINERAL REJECT/SUB GRADE AND DISPOSAL OF WASTE:

27. The year wise buildup of waste dumps has not been described in detail. The information should be furnished in the following table.

Year	Waste Generation (in m ³)	Waste Dumped (in m ³)	Dump Name	Location of Dump (coordinates)	Existing or new dump	Top RL of the Dump	No of terrace proposed.	Individual Terrace height	Slope of the terrace	Overall slope angle of dump

28. Detailed calculation of top soil and waste generated during plan period and conceptual period, area required for disposal, manner of disposal, no of terraces, height of each terrace, protective measures like retaining wall, garland drain, check dams etc. required to be furnished with proper calculation and should be reflected in respective plan & sections.

PROGRESSIVE MINE CLOSURE PLAN

29. All the paragraphs have needs to be addressed in detail under PMCP chapter as per IBM Manual Appraisal MP 2014. The present land use pattern should be furnished as per the format under different heads.

30. Baseline information of the lease area has not been described as per guidelines. Further, base line information to be furnished for surrounding 500 meter form lease boundary. The monitoring of various environmental parameters as per the relevant statue should be proposed in the core and buffer zone the lease area. The details of proposed monitoring stations should be marked on the reclamation plan.
31. In FA table the different heads should be kept as per the format specified in IBM manual appraisal 2014. The area under different heads of FA table should be properly shown in different hatching color codes in FA plan. Accordingly necessary corrections need to be done at all relevant places.

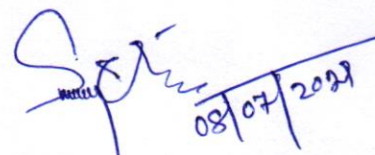
PRE-FEASIBILITY REPORT

32. Feasibility/Prefeasibility Study report conforming to Part V of Minerals (Evidence of Mineral Contents) Rules, 2015 has not been submitted particularly with reference to Cost and revenue factors such as the derivation of, or assumptions made, regarding projected capital and operating costs, the assumptions made regarding revenue including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, final price offer etc., the allowances made for royalties payable, both Government and private, Basic cash flow inputs for a stated period, Yearly planned production, Net Present Value (NPV) and Internal Rate of Return (IRR) of the deposit, intrinsic value of the deposit based on annual projected production has not been furnished. Market sensitivity study has not been submitted. Accordingly, necessary corrections should be made at all relevant places in the document.

PLATES (GENERAL):

33. All plans and sections should comply with the provisions of Rule 32 of MCDR 2017. The plans and sections submitted should bear the certificate that -the plans and sections are prepared based on the lease map authenticated by the state government. All plans and sections should be signed with date by Qualified Person.
34. With reference to CCOM Circular No 2/2010 and its addendum, the geo-referenced mining leases map superimposed on latest high-resolution satellite data has not been submitted. An authenticated Lease plan should be submitted.
35. Key Plan: The key plan has not been prepared as per the provision of rule 32 (5) (a) of MCDR 2017 particularly the boundaries of all villages and towns with their population, forests with tree density, approach road to lease area, Latitude/longitude of the extreme ML pillar coordinates etc. have not been marked in key plan.
36. Surface Plan: The features shown in the index is not distinguishably shown in the plan. Forest area, Non-Forest area, Surface right area needs to be shown in the plan as well as marked in the index of the map. The Surface Plan needs to be prepared as per the provision laid down under rule 32 (1) (a) of MCDR'2017.
37. Geological Plan & Section: The Geological Plan should be prepared complying the provision as laid down rule 32 (1) (b), (c) and (d) of MCDR'2017. The geological plan and sections needs to be prepared based on the geological plan and sections of the Geological report provided by the State Government. The proposed exploration needs to be shown in dotted lines in Geological sections along with proposed borehole number, RL and proposed closing depth at the bottom of the borehole. The year wise proposal for drilling to be shown in different contrasting color in both Geological Plan and Geological sections. The revised UPL needs to be shown in plans and all sections accordingly proper UNFC codes needs to be shown in both geological plans and sections. The revised UPL needs to be shown in plans and all sections. All litho units and geological features shown in the geological plan and sections needs to be shown in distinguishable color codes and should be properly indexed.

38. Development plan & Section: The development plans and sections should be prepared on updated geological plan and sections. The UPL needs to be shown in all year-wise development plans and sections. Existing and proposed year wise bench profiles, waste dumps etc. to be shown in the development plans and sections including legend. Year-wise proposed benches RL should be clearly depicted and distinguishable color code for proposed development and waste dumping should be furnished. Proper nomenclature of proposed pits & dumps should be clearly marked along with others protective measures should be clearly depicted.
39. Environment plan: The Environment Plan as prepared should be satisfy the provision as laid down rule 32 (5) (b) of MCDR'2017. The drainage pattern, land type, air, water and noise monitoring stations with in the core and buffer zone needs to be shown. Wind rose diagram should be shown with predominate wind direction.
40. Conceptual plan & Section: The conceptual plan and section needs to be prepared on updated geological plan and sections with revised UPL. The position of pits and dumps at the end of the life of the mine needs to be shown.
41. Reclamation plan: Reclamation plan has not submitted with the draft document. Proposals of land restoration/reclamation/rehabilitation, afforestation, waste dump management etc should be depicted year-wise with different color codes in Reclamation Plan. The proposed retaining & garland wall, settling pond should be furnished.
42. Financial Assurance Plan: The area under different heads of FA table should be properly shown in different color code hatching with present area and additional area in FA plan. The FA table should be furnished.



(Sanjib Kumar Mohapatra)
Senior Mining Geologist