



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



Phone: 0674-2352463
Tele Fax: 0674-2352490
E-mail: ro.bhubaneswar@ibm.gov.in
Plot No.149, Pokhariput
BHUBANESWAR-751020

No. MRMP/A/47-ORI/BHU/2020-21

Date: 27.01.2021

सेवामे

✓ Shri Mahesh Kumar Agarwal, Managing Director,
Sree Metaliks Ltd, Post Box No-28,
P.O-Barbil, Dist- Keonjhar,
Odisha-758035

विषय: Approval of modification of Review of Mining Plan of Khandbandh Iron Ore Mine along with Progressive Mine Closure Plan (PMCP), over an area of 35.774 ha in Keonjhar district of Odisha State, submitted by M/s Sree Metaliks Ltd under Rule 17(3) of MCR, 2016.

संदर्भ: - i) Your letter No. Nil dated 13.01.2021.
ii) This office letter of even no. dated 14.01.2021.
iii) This office letter of even no. dated 14.01.2021 addressed to the Director of Mines, Govt. of Odisha, copy endorsed to you.

महोदय,

This has reference to the letter cited above on the subject. The draft of modification of Review of Mining Plan along with Progressive Mine Closure Plan (PMCP) has been examined in this office by Shri Dayanand Upadhyay, Senior Asst. Controller of Mines. The deficiencies observed are enclosed herewith as Annexure- I.

You are advised to carry out the necessary modifications in the draft modification of 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 USB Pendrive/Flash drive in a single MS Word file (the drawing/plates should be submitted in Auto CAD compatible format or JPG format in resolution of 100x100 pixels on same USB Pendrive/Flash drive)** of the Modification of 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 modification of 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 modification of Review of Mining Plan. It may be noted that no extension of time in this regard will be entertained and the modification of 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,
27/1/21
(हरकेश मीना)

क्षेत्रीय खान नियंत्रक

प्रतिलिपि सादर सूचनार्थ और आवश्यक कार्रवाई हेतु Shri K Shankar, Old No-7, New No-11, F-2,
First Floor, Sakunthala Enclave, Jawaharlal Nehuru Street, T Nagar, Chennai-600017.

(हरकेश मीना)

क्षेत्रीय खान नियंत्रक

Scrutiny comment of Modification of Review of Mining Plan including PMCP in respect of Khandbandh Iron Ore Mine, Area 35.774 ha. of M/s Shree Metaliks Ltd in Keonjhar district of Odisha State.

GENERAL:

1. On cover page, "Review of Mining Plan submitted for the financial year" as furnished should be replaced with modification of review of mining plan. Page no.-4, Para-1(a), the name of nominated owner is to be furnished along with name and address of the company. Page-7, topo sheet no. has not been furnished.
2. Para-3.3, Page 9-10, the review of earlier approved proposal, the ROM production and excavation of waste have not been updated till December 2020. All the updated figures should be furnished accordingly.
3. 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 no. address and declaration of nominated Owner to be furnished.
4. The experience certificate of all qualified person should be as per provision of rule 15(1)(b) of MCR 1960. Qualified person address, e-mail, Phone number, Mobile number, PIN code and Fax no. should be furnished on cover page.
5. Sequence of para and its numbering as per IBM Manual appraisal MP 2014 should be covered in text. All the headings as mentioned in the IBM Manual appraisal MP 2014 should be furnished in all chapters in the text. All the annexure and text to be properly indexed/ numbered/ paged and signed by qualified person. All the certificates/annexures should bear dated signature.

GEOLOGY:

6. Page-21&22, deposition of various litho units indicating structural features have not been furnished with their thickness. Under para shape and size of the mineral /ore deposit, the structural information like strike, dip, dip-direction are to be furnished and these information should be reflected on geological plan and section. Further, the lithology shown in the borehole log should match with the lithology shown in geological plan and sections.
7. In page 25, Para (iii), the details of the sample analysis indicating type of sample should be given in tabulated format and nos. of sample analysis from NABL/Govt. lab out of total sample should be furnished along with annexure.
8. Page-26, additional para-1(1) as furnished is not as per IBM Manual appraisal MP 2014 and it should be omitted.
9. Page 27, as per provision of rule 12(4) of MCDR2017, the lease area should be proposed to cover under G1 level of exploration upto end of mineralization. At the end of the table cumulative number of proposed BH in forest area, non-forest area, diverted forest area, Surface right area and non -surface right area to be given.
10. The area explored under G1/G2....have not been be furnished as per as per Minerals Evidence of Mineral Contents Rules 2015.
11. Page-30, residual reserve/resources as furnished in table has not been justified with production figures. The ROM production carried out month wise after approval of review of mining plan should be furnished in table.
12. The method of reserve/resources estimation may be elaborated with recovery factor, Bulk density and, Length of influence considered, cut-off grade etc. Necessary supporting documents to be furnished with respect of bulk density and recovery factor considered.
13. The reserve and resources has not been furnished as per Minerals Evidence of Mineral Contents Rules 2015. In geological sections, under G1 level of exploration, the resources furnished under 221 category

while at some places under 222 category. In all geological sections G1/G2 line should be clearly marked in horizontal plane. In geological section 332500 and 332800, the reserve under 122 category has not been shown while in text the same sections are considered for estimation of reserve under 122 category. It should be re-checked and corrected accordingly.

14. Page-34, 35 and 36, table no.-25a, 25b, 25c, the grade wise reserve and resources as furnished are not supported with geological sections. In geological sections grade wise reserve and resources have not been furnished.
15. The justification of UNFC of G1/G2 axis, F1/F2 axis and E1 & E2 axis have not been explained based on exploration status of the lease area and feasibility report prepared. It may be elaborated.

MINING:

16. It has been proposed to enhancement of production capacity from 0.702 MTPA to 1.50MTPA. Since this captive mine therefore requirement enhancement of ROM production is to be justified in light of existing plant capacity and further proposed enhancement of plant capacity if any.
17. Existing quarry has not been updated in terms of length, width, top RL and bottom RL. Existing method of mining should be described in brief. Proposed method of mining should be furnished in light of development plan i.e production capacity, nos. of pits proposed for production, waste dump and other designing parameters to be discussed.
18. Page-49, the existing mineral reject/stocks as furnished are not updated. The average grade of mineral reject should be furnished and their analysis report is to be enclosed in annexure. All the existing stacks as furnished in the document should be matched with monthly returns submitted to this office in terms of quality and quantity.
19. Page-54, it has been proposed for re-handling of mineral reject/sub grade dump -1 and 2 to facilitate further mining activity. However their location of further storage/dumping or use has not been explained. It should be explained with their location.
20. Page 63, briefly the layout of mine workings, pit road layout, the layout of faces and sites for disposal of overburden/waste along with ground preparation prior to disposal of waste, reject etc.
21. Back filling proposal as furnished in development plan has not been explained text. Exhausted area to be backfilled by OB/Waste to be specified with RL and area on year to year basis with description of the method & manner of disposal of waste.
22. Before backfilling of the quarry as proposed, it should be ensured the exhaustion of ore body in terms of their depth & extension in the interest of mineral conservation.
23. In conceptual mining plan, cumulative waste generation and protective measures i.e restoration of safety zone and slope of the dump may describe properly. 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 "re-grassing in mining area after closure of mines". Accordingly it should be discussed during conceptual period.

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

24. The extent/location of the proposed dumps to be given also mentioned whether within UPL or not. Also give the details of the existing dumps (top soil, waste dump, mineral reject dump) within the lease area in tabulated form comprising dump number, designed capacity, present quantity, remaining quantity, bottom RL and top RL.

25. Details Existing and proposed retaining wall, garland drain, settling tank etc. to be given yearwise with their location. Location of sub-grade storage along with year to year development is to be given.
26. It should be ensured that the area proposed dumping should be proved non mineralized. The proposed location of mineral reject should be furnished with terraces to minimize the land degradation. The details of mineral reject dumps and their analysis report should be submitted and discussed for their future use on the basis of their physical and chemical properties.

PROCESSING OF ROM AND MINERAL REJECT:

27. Page-98 and 99, the flow chart as furnished has not been explained considered the cut off grade of ROM production. Material balance chart is to be furnished correctly. It should be described with average size of feed, grade and details of products generated with quantity, recovery and grade. Page-99, water requirement is not correctly furnished. It should be in tabular form with total requirement of water for mine and their consumption in different heads. Source of water, permission form concern department, recycle of water and water balance chart should be furnished.
28. At page no.-94, Para-(b), it has furnished that lessee has proposed to set up beneficiation plant within lease area however the same has not been described in the processing of ROM and mineral reject chapter and also location of proposed beneficiation plant has not been marked in development plan.

PROGRESSIVE MINE CLOSURE PLAN:

29. Page-102, Para-8.1, the baseline information should be described properly incorporating buffer zone of the lease area.
30. Page-115, Para-8.3.1, the information of Progressive reclamation plan of mined out land should furnished as below:

Year	Pits/ Quarries/ dump	Area beginning of year(ha)	Additional degraded during year(ha)	Area to be reclaimed by backfilling(ha)	Area rehabilitated by plantation (ha)	Balance area at the end of year

31. Under impact on land, cumulative land degradation at present, at the end of proposal period and at the end of conceptual period may be given referring to conceptual mining plan.
32. Year wise plantation covering number of saplings to be planted, location and area covered may be furnished. Matured area of backfilling and dump slope should be stabilized with plantation.
33. Page-124, Para-8.6, Mine Development and Production Agreement(MDPA) has been made between lessee and State Govt., therefore the details of amount of security money submitted to State Govt. and their validity is to be furnished and copy of the same is to be enclosed in annexure.


FEASIBILITY STUDY REPORT:

34. 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: Capital cost, Cash flow forecast, Investment cost, Inflation forecast, Operating cost, Sensitivity studies, RR, IRR, NPV for the project life, cost of operation, Closure cost and Rehabilitation cost etc.

PLATES (General):

35. All the plan and sections should be signed with date by certified surveyor, qualified person, mines manager and mining geologist. The plans and sections submitted bear the certificate that --the plans and sections are prepared based on the lease map authenticated by the state government.
36. All plans and sections shall show a scale of the plan at least twenty five centimeters long and suitably subdivided. Wind direction may show through wind rose diagram in key plan and environmental plan. Approach road to the ML to be shown.

37. Existing and proposed bench RL to be mentioned in the all plans and sections. The UPL should be shown in red color in all relevant plans and sections. Magnetic Meridian with declination and date of observation of should be given on all relevant plans. Approach road to the ML to be shown.
38. The CCOM circular no.2/2010 and its addendum should be implemented. The lease area as furnished in DGPS plan is not matched. It may be clarified.
39. **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.
40. **Surface Plan:** Few pillars may be correlated with some permanent ground features giving distance and direction. Virgin area to be shown by contours and spot RL in surface plan. Forest & Non forest area, Surface right acquired area etc. should be marked clearly.
41. **Geological Plan & Section:** Data related to strike, dip, dip-direction etc. shown clearly on the geological plan. In the Geological Plan UNFC boundaries G1, G2..., explored area, unexplored area, drilled boreholes and year wise proposed boreholes to be shown in relevant colors. In sections UNFC codes have not been furnished as per Minerals Evidence of Mineral Contents Rules 2015. The proposed bore holes are to be marked in sections and litho units should be matched with bore hole logs.
42. **Development plan & Section:** The existing benches are not shown distinctly with their RL. The sequence of development of benches of previous year should be followed in next year development plan. The color codes of Development Plan and Section should be same. Different types of ore encountered through bore holes and based on bore holes data, ore profile and their nomenclature to be corrected accordingly.
43. **Environment plan:** The Environment Plan as prepared should be satisfy the provision as laid down rule 32(5) (b) of MCDR2017. The proposed and existing environment protective measures to be shown in environment plan. The drainage pattern of the lease area & contours in core zone and surface structure in buffer zone should be shown.
44. **Conceptual plan:** Conceptual plan may be prepared considering mineralization as revealed from the borehole logs. Direction of run off from the area based on surface contours may be shown on the plan and the sections.
45. **Reclamation Plan:** Proposals of backfilling/reclamation/rehabilitation, afforestation, waste dump management etc should be depicted in Reclamation Plan year wise with different color codes. The proposed retaining & garland wall, settling pond should be furnished.
46. **FA Plan:** Types of land degradation with area in hectare should be shown through solid boundary color. Infrastructure existing and proposed are to be marked clearly.


22.01.2021

(Dayanand Upadhyay)
Senior Assistant Controller of Mines