



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. MPM/A/02-ORI/BHU/2021-22

Date: 09.04.2021

सेवामे

Shri Prahlad Roy Goenka, Managing Director & Nominated Owner,
M/s Korp Resources Pvt Ltd,
161, Rabindra Sarani,
Kolkata-700007

विषय: Approval of modification of Mining Plan of Tantra Iron Ore Mine along with Progressive Mine Closure Plan (PMCP), over an area of 72.56 ha in Sundargarh district of Odisha State, submitted by M/s Korp Resources Pvt Ltd under Rule 17(3) of MCR, 2016.

संदर्भ: - i) Your letter No. Nil dated 24.03.2021 received on 30.03.2021.
ii) This office letter of even no. dated 30.03.2021.
iii) This office letter of even no. dated 30.03.2021 addressed to the Director of Mines, Govt. of Odisha, copy endorsed to you.

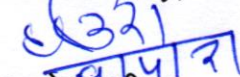
महोदय,

This has reference to the letter cited above on the subject. The draft modification of Mining Plan along with Progressive Mine Closure Plan (PMCP) has been examined in this office based on site inspection carried out on 06.04.2021 by Shri Dayanand Upadhyay, Senior Assistant 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 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 or JPG format in resolution of 100x100 pixels on same CD)** with financial assurance under Rule 27 of MCDR 2017 of the Modification 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 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.

Yours faithfully,


(हरकेश मीना)

क्षेत्रीय खान नियंत्रक

Copy for kind information and further necessary action to Shri S.C. Nayak, M/s MINESKETCH Consultants (P) Ltd, Flat No-205, Bhagwan Tower, Cuttack Road, Bhubaneswar-751006.

(हरकेश मीना)

क्षेत्रीय खान नियंत्रक

10/11/15
10/11/15

Scrutiny comment of Modification of Review of Mining Plan in respect of Tantra Iron ore Mine, over an area of 72.56 ha of M/s Korp Resources Pvt. Ltd in Sundargarh district of Odisha State.

GENERAL:

1. On cover page and other part of the text, modification of review of mining plan should be furnished in place of modification of mining plan under rule 17(3) of MCR 2016 and undertakings and certificates should also be corrected accordingly. The period of proposal is not correctly furnished on cover page.
2. In introduction chapter the reason of modification of review of plan is to be furnished in brief. Page-2, the status of environmental clearance for 0.24MTPA production of iron ore has not been furnished.
3. Para-3.3, Page 9, the review of earlier approved proposal, the ROM production and excavation of waste have not been furnished for the year 2020-21. All the updated figures should be furnished accordingly. The specific year of bore holes drilled has not been furnished with intimation relevant forms.
4. 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. Name of the nominated owner should be furnished under name of the applicant.
5. 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.
6. 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:

7. Page-12, in topography of the area, the highest and lowest altitudes are to be furnished. Page-15, 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.
8. During field inspection it has been observed that bore holes in the year 2020-21 has not been completely furnished. Form-I and Form-J along with analysis report of all the drilled bore holes are to be submitted. Page no.-17, Para-(ii), the details of exploration carried out as furnished has not been described the type of bore holes i.e Core/RC/DTH.
9. In page 18, 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.
10. Page 20, 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.
11. The area explored under G1/G2...have not been be furnished as per as per Minerals Evidence of Mineral Contents Rules 2015. In geological plan UPL has not been marked prevailed on mineralization.
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. The reserve and resources have been estimated considering the grade of +58%Fe and 45-58% Fe while in geological sections bifurcation of ore zone of +58% Fe and 45-58% Fe are not furnished. Also the ore as furnished in geological sections are not matched with bore holes logs. The calculation of reserve and resources should be re-checked and is to be verified from geological sections.
14. As per guideline of "IBM manual on appraisal of Mining Plan 2014" at least 10% of total samples to be analyzed in accordance to BIS and reports form NABL accredited/Government Laboratory.

MINING:

15. Page-35, 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. The status of environmental clearance for 0.24MTPA production of iron ore has not been furnished as proposed earlier in last approved document.
16. Page-34, the grade of the mineral reject is furnished +45%-55% Fe while in geology chapter the grade of mineral is considered +45%-58% Fe considering the cut off grade +58% Fe. It should be re-checked and corrected. Accordingly calculation of saleable ore and mineral reject are to be revised.
17. In development sections the grade of saleable ore and mineral reject has not been furnished as per bore data. Therefore calculation of insitu tentative excavation of ore and mineral reject are not matched with development sections.
18. The ROM production has been proposed 0.24MTPA however it has been observed that in wet beneficiation plant 01MTPA processing of ore and in dry processing (screening and crushing) 01 MTPA processing of ore have been proposed. It should be clarified in line of proposed capacity and corrected accordingly.
19. Year wise development and production plan should be furnished in the following tabulated format:

Particular for the year...		
Bench Geometry	Height (in m)	
	Width (in m)	
	Individual bench slope angle	
Quarry Development	Location (Quarry Name)	
	Extent of Development (coordinates)	
	Sections considered for development	
	Number of benches	
	Benches considered for development with RL	
	Top RL	
	Bottom RL	
	Direction of advancement	
	Dimension of the quarry at the end of the year including existing benches	
	Area occupied (in sq.m)	
	Overall quarry slope angle	
	Production of Ore (in MT)	
	Generation of Mineral rejects ore from quarry (in MT)	
	Production of ROM (Ore + Mineral Reject) in MT	
Total Generation of waste (in cum)		

20. Page 41, 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. 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:

- 22. 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.
- 23. 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.
- 24. 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:

- 25. Page-70, material balance chart has not been furnished correctly. It should be described with average size of feed, grade and details of products generated with quantity, recovery and grade. Page-56, the grade of ore is to be process, furnished +45%-58% Fe while in mining chapter the grade of mineral reject is furnished +45%-55% Fe. It should be re-checked and corrected.

PROGRESSIVE MINE CLOSURE PLAN:

- 26. Page-75, Para-8.1, the baseline information should be described properly incorporating buffer zone of the lease area. Page-85, 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

- 27. Page-90, Para-8.6, net area calculated for financial assurance under item waste dump and mineral storage are not matched with existing area and proposed area. It should be re-checked and corrected.
- 28. Monitoring station of air, noise and water should be described in text and their locations furnished in tabular form. Updated air, water, noise, ground vibration and soil data with analysis from laboratory done at specified periodicity to be enclosed.
- 29. Para-8.3.6, Page-87, in dump management plantation has not been furnished nos. of plantation also not furnished under item of reclamation of waste land/safety zone. Year wise plantation covering number of saplings to be planted, location and area covered may be furnished.

FEASIBILITY STUDY REPORT:

- 30. 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):

- 31. 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.
- 32. 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.

33. 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.
34. 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.
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.
36. **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.
37. **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.
38. **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. Year wise mining plan proposals and land use pattern should be submitted in soft copy in the format of .kml or .shp file along with document.
39. **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.
40. **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.
41. **Reclamation Plan:** Proposals of land restoration/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.