



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/32-ORI/BHU/2020-21

Date: 01.02.2021

सेवामे

The Managing Director & Nominated Owner,
M/s Odisha Mining Corporation Ltd
OMC House, Bhubaneswar -751001

विषय: Approval of Mining Plan of Guali Iron Ore Mine along with Progressive Mine Closure Plan (PMCP), over an area of 358.258 ha (As per DGPS)/ 365.026 ha (As per RoR) in Keonjhar district of Odisha State, submitted by M/s Odisha Mining Corporation Ltd under Rule 16 of MCR, 2016.

- संदर्भ: - i) Your letter No. 811/OMC/PMC/2021 dated 15.01.2021 received on 19.01.2021.
ii) This office letter of even no. dated 19.01.2021.
iii) This office letter of even no. dated 19.01.2021 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 by Shri Ramkishan R, Senior Asst. Controller of Mines & Shri S R Mazumdar, 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.

भवदीय,
(हर्केश मीना)

क्षेत्रीय खान नियंत्रक

Copy for kind information and further necessary action to Shri Pradip Kumar Sahoo, M/s
Odisha Mining Corporation Ltd, OMC House, Bhubaneswar -751001.

(हरकेश मीना)
क्षेत्रीय खान नियंत्रक

Scrutiny comments on examination of Mining plan with PMCP of Guali Iron Mine over an area of 358.258 Ha (as per DGPS survey) in Keonjhar District of Odisha State of M/s OMC Ltd

GENERAL POINTS:

1. The name of the mining lease should be "Guali Iron Ore Block" as per executed mining lease deed. Need to do necessary correction in the cover page and also at all relevant places of text and plates.
2. In the introduction chapter, it has not been mentioned that the proposed production of iron ore during the plan period is higher than the existing EC capacity of previous lessee i.e. 5.7 MTPA. Lessee has not mentioned that required statutory clearances will be obtained regarding the same. Further, the proposal has not been submitted for compliance of Para 2.4 of executed lease deed. Need to do necessary corrections.
3. Sequence of paragraph and its numbering as per IBM Manual Appraisal MP 2014 has not been 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 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/annexures should bear dated signature. Need to do necessary corrections at all relevant places in the document.
4. All the corresponding documents details should be furnished in introduction such as reservation of mining block, LOI, vesting order, etc., to the lease deed execution with State Govt. of Odisha have not been submitted along with relevant annexures. Need to do necessary corrections.
5. Period of proposals in financial year has not been furnished in cover page and in text and relevant plates of the document. Need to do necessary corrections.

Geology and Exploration

6. **Geological Report:** The copy of the Geological Report as supplied by the state government has not been submitted as separate annexure. The mineral block summary report along with text, annexures and plates of the Geological report should be submitted. Need to do necessary corrections.
7. The resources estimated as in 31.07.2019 furnished in Mineral Block Summary available in MSTC Odisha is 198741915 tones whereas in the Geological Report the resources estimated are 183858909 tones. Need to recheck and submit the correct information.
8. All the geological information furnished has to be furnished as per the Geological report approved by state government along with documentary evidences. Need to do necessary corrections.
9. As per rule 12 (3) of MCDR 2017, G1 level of exploration proposal has not been furnished. Need to modify future exploration proposal accordingly. Further, exploration proposal should be furnished over the area currently explored under G2, G3 and unexplored area for G1 level of exploration. The year wise exploration proposal should be modified and the year should be mentioned in financial year. Further, the exploration proposal has not been submitted as per the format specified in IBM Appraisal of MP 2014. Additionally, the details of individual proposed boreholes should be furnished in following tabulated format. Need to do necessary corrections.

Year of drilling	Section No	Proposed BH no	Core/ RC/ DTH	Northing	Easting	Collar RL	Borehole Inclination	Proposed Depth	Forest area/ Non forest area/ diverted forest area	Area having surface right/ non-surface right area

10. The lease area exploration status furnished should be corrected to the extent that the information furnished should be as per the information furnished in Geological report. The exploration status as on "specific date" has not been mentioned. Need to do necessary corrections.
11. All the parameters considered for like recovery factors, bulk densities etc., for estimation of reserves/resources should be as per the Geological report with referring to the relevant annexures. Need to do necessary corrections.
12. The total reserve and resources estimated in the draft mining plan submitted does not match with the resources estimated in Geological report as on 31.07.2019 less the depletion of production by the ex- lessee thereafter till 31.03.2020. Hence, the reserves and resources estimated is incorrect and should be corrected accordingly. The detail calculation for revised estimation of reserves and resources for different UNFC codes should be based on the updated geological plans and sections which were submitted along with the Geological Report. Need to recheck calculation and do necessary corrections at all relevant places in text/tables etc.
13. The final presentation of reserves and resources as on date (specific date) has not been mentioned. The date of survey has not been mentioned in plans. Need to mention date of survey and the date of estimation should be the date of survey. The final presentation of reserve and resources as on date of survey for iron ore under various UNFC codes separately for ore and mineral reject with grade should be rechecked and corrected. Accordingly, life of mine to be recalculated. Need to do necessary correction and furnish required information.

14. Page 33-44, the grade column is kept blank. Need to do necessary corrections.
15. As entire area has not been explored under G1 level of exploration, hence prefeasibility report should be furnished and accordingly the UNFC codes for reserves and resources should be rechecked and corrected in text and in plates. Further, Justification of UNFC codes as per UNFC guidelines has not been furnished. Need to do necessary corrections.

MINING

16. 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. In existing method of mining, the information should be modified as this is fresh grant of mining lease. Need to do necessary corrections.
17. Insitu tentative excavation table showing quarry wise production proposal has not been submitted. Further, insitu tentative excavation proposal could not be verified as year wise development plans and sections have not been submitted. The detail section wise calculation of proposed production quantities has not been submitted. Need to do needful.
18. 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 (in UTM coordinate)	
	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)		

19. Conceptual Mine planning should be modified taking into consideration of the revised production from in-situ excavations, available reserves and resources describing the excavation, recovery of ROM, Disposal of waste, backfilling of voids, reclamation and rehabilitation showing on a plan with few relevant sections.
20. Conceptual land use patterns details have not been furnished. Need to furnish the same. The basis of calculation of furnished powder factors figures should be furnished. The details regarding the blasting should be elaborated.
21. 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.

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

22. The year wise buildup of waste dumps has not been described in detail. The information should be furnished in the following table. No proposal should be submitted for stacking of mineral rejects over existing minerals rejects stacks/mineral reject dumps of previous lessee within the stipulated time frame as allowed by State Govt. to remove it in favor of earlier lessee as per rule. Need to do necessary corrections.

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

USE OF MINERAL and MINERAL REJECT

23. The utilization of different end products produced from ROM processing of Iron ore viz., lumps and fines products, whether utilized in captive plant/sold in the open market should be mentioned clearly for individual different size and quality products.

PROCESSING OF ROM AND MINERAL REJECTS

24. The material balance chart furnished is incorrect. The ROM feed grade and tonnage with recovery%, grade and tonnage of product at each stage of processing may be shown in the flow sheet along with block diagram processing plant. The summary of the physical and chemical composition of feed material, grade and quantity along with different output products with physical and chemical composition (with nomenclature of product) should be furnished with recovery percentages. The recovery percentage considered at each stage of processing should be justified properly. Accordingly, it should be corrected and modified.

PROGRESSIVE MINE CLOSURE PLAN

25. 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 monitoring stations should be marked on the environment plan.
26. The plantation proposal over matured waste dump slopes should be reviewed and furnish proposal accordingly.
27. 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 with present area and additional area in FA plan. Financial assurance in form of Bank Guarantee as per rule 27 of MCDR 2017 to be submitted. Need to do necessary corrections at all relevant places.
28. Year wise mining plan proposals and land use pattern should be submitted in softy copy in the format of .kml or .shp file along with document. Need to do necessary corrections.

PRE-FEASIBILITY REPORT

29. 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, 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.

PLATES (General):

30. The conventions provided under the Metalliferous Mines Regulations, 1961, shall be used in preparing all plans and sections. 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. Date of observation of Magnetic meridian should be shown in all plans. The Northing (N) and Easting (E) have not been mentioned along the grid coordinate values of plans and sections. Need to do necessary corrections.
31. 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.
32. All plans and sections should be signed with date by certified Surveyor, Qualified Person, Mine Manager, Mining Engineer and Mining Geologist. Date of survey has not been mentioned in the plans submitted. Need to do necessary corrections.

Key Plan:

33. The key plan has not been prepared as per the provision of rule 32 (5) (a) of MCDR 2017. The reference of the toposheet numbers has not been mentioned. Need to do necessary corrections.

Surface Plan:

34. Few boundary pillars should be correlated with some permanent ground features giving distance and bearing/direction. Nomenclature of the existing waste and mineral reject dumps along with fines stack should be mentioned. Need to do necessary corrections.
35. The boundary pillars coordinates have not been furnished in a tabular format. The Surface Plan should be prepared to satisfy the provision as laid down rule 32 (1) (a) of MCDR'2017.

Geological Plan & Section:

36. The Geological Plan should be prepared complying the provision as laid down rule 32 (1) (b), (c) and (d) of MCDR'2017. The mineralized and non-mineralized area as demarcated in Geological plan of Geological Report has not been shown properly. Need to do necessary corrections.

37. The revised exploration proposal as mentioned in the scrutiny point should be incorporated in geological plan. The proposed boreholes 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 year wise color of the boreholes proposed in Geological plan should match with the plotted proposed boreholes in Geological sections. Need to do necessary corrections.
38. The UNFC codes should be rechecked and corrected in all plans and sections after complying above scrutiny points. The revised UPL and UNFC codes to be shown in sections. The blank portions of the sections above the UPL should be filled with relevant lithologies. Need to do necessary corrections.
39. The demarcation of ore and mineral reject should be rechecked and corrected justifying the calculations for reserve and resource estimation for the same by cross sectional method. Need to do necessary corrections.

Development plan & Section:

40. The development plans and sections should be prepared on updated geological plan and sections. Year wise mining plan proposals should be submitted in softy copy in the format of .kml or .shp file along with document. Need to do necessary corrections.
41. Year wise development plan and sections submitted should be rechecked and corrected. UPL has not been shown in development plans and sections. The development boundaries have not been shown in the plan and section and also in index. Need to do needful.
42. Quarry name, existing and proposed year wise bench profiles, waste dumps, mineral reject dumps etc. to be shown in the development plans and sections including legend. The lithology of the area should be clearly shown in year wise development plan and sections in the area proposed for development. In development plan, proposed benches RL should be clearly depicted. Proposed infrastructure and waste dumping should be furnished year to year basis in different color codes. The nomenclature of existing and proposed dumps should be clearly marked. In development section progress of dumping and others protective measures should be clearly depicted. Need to do necessary corrections.
43. The UNFC codes should be rechecked and corrected after complying the above scrutiny points.

Environment plan:

44. The Environment Plan as prepared should be satisfy the provision as laid down rule 32 (5) (b) of MCDR'2017. The proposed environment protective measures to be shown in environment plan. Air, water and noise monitoring stations and wind rose diagram should be shown. Need to do necessary corrections.

Reclamation plan:

45. Reclamation plan should be submitted as per IBM appraisal of mining plan describing the proposals to be implemented for reclamation and rehabilitation of mined-out land including the manner in which the actual site of the pit will be restored for future use. The proposals may be supported with yearly plans and sections depicting yearly progress in the activities for land restoration/ reclamation/rehabilitation, afforestation, protective measures etc.

FA Plan

46. The area under different heads of FA table should be properly shown in different hatching with present area and additional area in FA plan. The FA table should be furnished.

Annexures

47. Few photographs showing Land use of the lease area, environmental status of the area has not been submitted.
48. Copy of the latest board of Directors signed by competent authority need to be submitted. Copy of the board resolution on appointment of Nominated Owner should be rechecked and corrected. ID and address proof of the Nominated owner should also be submitted. Need to do necessary corrections at all related places in the document.
49. Copy of surveyor certificate and financial assurance in form of Bank Guarantee as per rule 27 of MCDR 2017 has not been submitted. Need to submit the same.
50. Copies of the following orders have not been enclosed: Order No. F.No.4/1/2020-M.VI dated 05.01.2021; Notification no. 283/SM dated 11.01.2021; Copy of Letter of Intent vide letter No. 312/SM dated 11.01.2021; copy of the vesting order etc.

S. Ranjan Mazumdar
01/02/2021
(Sudip Ranjan Mazumdar)
Senior Mining Geologist

R. Ranjan
01/02/21
(Ramkishan R)
Senior Asst. Controller of Mines