



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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BHUBANESWAR-751020

No. MPM/A/05-ORI/BHU/2021-22

दिनांक / Date: 02.07.2021

To

Shri Sourav Misra,
Director/Nominated Owner,
M/s Ghanashyam Misra & Sons Pvt. Ltd.,
At/Post- Gorumahisani, Dist-Mayurbhanj,
Pin-757042, State-Odisha.

Sub: Modification of Mining Plan along with Progressive Mine Closure Plan of Gorumahisani Iron Ore Mines over an area of 349.709 ha (As per DGPS)/349.500 ha (As per ROR) in Mayurbhanj district of Odisha of M/s Ghanashyam Misra & Sons Pvt. Ltd. submitted under Rule-17 (3) of MCR, 2016.

Ref: - i) Your letter no. nil dated 16.06.2021 received on 21.06.2021.
ii) This office letter of even no. dated 21.06.2021.
iii) This office letter of even no. dated 21.06.2021 addressed to the Director of Mines, Govt. of Odisha, copy endorsed to you.

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 01.07.2021 by Shri Dayanand Upadhyay, Sr. Assistant Controller of Mines Shri Sanjib Kumar 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 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 USB Pendrive/Flashdrive 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 USB Pendrive/Flashdrive)** 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

Copy for kind information and necessary action to:

1. Shri S. C. Nayak, Qualified Person, M/s Minesketch Consultants (P) Limited, Flat No-205, Bhagwan Tower, Cuttack Road, Bhubaneswar-751006.

(HARKESH MEENA)

क्षेत्रीय खान नियंत्रक / Regional Controller of Mines

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/annexures should bear dated signature. Need to do necessary corrections at all relevant places in the document.
2. In the introduction chapter a brief history of the auctioned mining lease area to be given depicting all instances with documentary evidence as annexure from the grant of the mining lease to as on date in chronological order with synopsis of the lessee.
3. Status of the fresh statutory clearances as on date needs to be provided with documentary evidences w.r.t. the Vesting Order of Govt. of Odisha vide letter No. 4517/SM-III(A)SM11/2020, dated 04.06.2020.
4. Reason for modification of the approved mining plan needs to be properly justified w.r.t. systematic and scientific development of the mine.
5. Page no.-15, Item wise review of earlier approved proposal and actual work done has not furnished properly, needs to be reviewed and reproduced with authentic data for the corresponding period. Specifically the exploration and production proposal and actual work done furnished in the draft document is not correct, the needs to be rectified properly.
6. The experience of qualified person should be clearly stated in supervisory capacity in the field of mining as per provision of rule 15(b) of Minerals (Other than Atomic and Hydro Carbons of Energy Minerals) Concession Rules, 2016.
7. 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.

Geology and Exploration

8. Page-18, the topography, drainage pattern, regional geology and structural features of the area have not been described in the line of geological report as discussed during field. All the geological parameters should be furnished as per geological report and copy of the geological report should be enclosed in annexure.
9. It has been mentioned in page No. 18 that, the altitude of the ML area ranges between 483m to 906m MSL. Whereas, altitude of the western part of the lease area ranges between 350m & 290m., the same needs to be reviewed and rectified properly.
10. The range of the temperature furnished under 'Climate & rainfall data' is not correct; the same needs to be rectified.
11. The copy of final geological report along with all plans and sections& annexures, vetted by the State Govt. has not been submitted with the draft document. The same needs to be submitted in a separate volume. The block summary report also needs to be submitted.
12. In Page No. 34, Para (iii); the details of samples analysed indicating year, No. of samples collected, No. of samples analysed and No. of samples analysed from NABL/Govt. lab needs to be furnished in a tabular format.

13. 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 upto end of mineralization. Further where the bore holes end in mineralized zone should be proposed to prove the end of mineralization.
14. Bulk density of iron ore (+55% Fe) and mineral rejects (+45% to -55% Fe) has been considered as 3.4 t/m³ and 3.1 t/m³ respectively. Bulk density should be strictly followed as per the geological report vetted by State Govt. during the auction process.
15. The parameters considered for reserve/resource estimation, the relevant information from Geological report supplied from state government need only be mentioned. All the geological information has to be furnished as per the Geological report approved by state government along with documentary evidences. Detailed description of geology of the lease area such as shape and size of the mineral/ore deposit, disposition various litho-units indicating structural features if any etc. needs to be furnished as per Geological report.

MINING

16. It has been observed during field inspection that for the year 2020-21 the working is carried out only in two pits namely in Kochar quarry and F-quarry which lateral extension and bottom RL are not updated in text and in surface plan. All the existing quarry, dumps etc. are to be updated in terms of their length, width, top RL and bottom RL based on recent survey.
17. Page-51, the month wise production of ROM as furnished in instant document have been verified from monthly returns submitted to this office and it has been observed that month wise production of ROM as furnished are not matched with the monthly returns submitted to this office. It may be re-checked and corrected accordingly.
18. Insitu tentative excavation table showing quarry wise excavation proposal are not in the line of earlier approved proposal of mining plan and the ratio of production proposal of ore and mineral reject are not matched and not justifiable. The recovery and other parameters of the ore, mineral reject & waste etc should be justified with the geological report vetted by State Govt. for the auction process of mining block. Accordingly year wise proposed insitu tentative excavation should be revised.
19. In the instant document it has been observed that the bulk density for overall grade of ore and mineral reject of mining block has been furnished for calculation of ROM production. However as per geological report the quarry wise bulk density of ore and mineral reject have been furnished. Since the mining block is granted through auction process, therefore all the parameters of geological report vetted by State Govt. should be implemented.
20. The development plan and sections are not matched to each other. The existing profile of the benches of Kochar quarry and F-quarry has not been updated. The grade wise ROM production considering ore and mineral reject as proposed and furnished in insitu tentative excavation table and calculation table are not matched with the development sections.
21. 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.
22. 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:

- 23. 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:

- 24. 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

- 25. 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.
- 26. Existing as well as proposed year wise protective measures like retaining wall, garland drain, check dams etc., should be furnished in tabular format with details of location, length, dimensions etc., a separate table should be given showing the year wise construction of retaining wall, garland drain and settling tank having specific proposal. Details of year wise proposal for construction of retaining wall, garland drain, settling tank etc. to be given with their location.

USE OF MINERAL and MINERAL REJECT

- 27. 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

- 28. 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 recovery percentage considered at each stage of processing should be justified properly.

PROGRESSIVE MINE CLOSURE PLAN

- 29. All the paragraphs have not been 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 of FA table of 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 monitoring stations should be marked on the environment 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 with present area and additional area in FA plan. Need to do necessary corrections at all relevant places.
- 32. 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.

FEASIBILITY/ PRE-FEASIBILITY REPORT


33. 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.

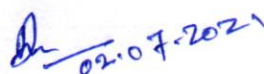
PLATES (General):

34. 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.
35. 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.
36. 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.
37. Surface Plan: The features shown in the index is not distinguishably shown in the plan. Diverted forest area to be shown in the plan as well as marked in the index of the map. Surface right area and forest, non -forest area, diverted forest area have not been shown. The Surface Plan should be prepared to satisfy the provision as laid down rule 32 (1) (a) of MCDR'2017.
38. 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 mineralized and non-mineralized area as demarcated in Geological plan of Geological Report has not been shown properly. Need to do necessary corrections. 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 UNFC codes should be rechecked and corrected in all plans and sections. The ore and mineral reject part considered in sectional method of calculation of reserves and resources should be demarcated in geological sections. Need to do necessary corrections. A separate set of Geological plan & section needs to be prepared and submitted on 1:2000 scale.
39. Development plan & Section: The development plans and sections should be prepared on updated geological plan and sections. Need to do necessary corrections. 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.

40. Environment plan: 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. The drainage pattern of the lease area also to be shown on the plan. Air, water and noise monitoring stations to be shown in the plan. Wind rose diagram should be shown with predominate wind direction.
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.
42. FA Plan: 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.


(Sanjib Kumar Mohapatra)
Senior Mining Geologist


(Dayanand Upadhyay)
Senior Asst. Controller of Mines