



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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Plot No.149, Pokhariput

BHUBANESWAR-751020

No. MPM/A/09-ORI/BHU/2019-20

दिनांक / Date: 27.11.2019

To

**Shri Rajib Lochan Mohanty,
Managing Partner, M/s M. G.
Mohanty, 5A, Forest Park,
Bhubaneswar-751009, Odisha.**

Sub: Modification of Mining Plan of Patabeda Iron Mine over an area of 14.00 ha in Sundargarh district of Odisha of M/s M. G. Mohanty submitted under Rule-17 (3) of MCR, 2016.

Ref: - i) Your letter no. MGM/CO/2019-20/10-108 dated 19.10.2019 received on 13.11.2019.
ii) This office letter of even no. dated 13.11.2019.
iii) This office letter of even no. dated 13.11.2019 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 25.11.2019 by Shri Ramkishan R, Sr. 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 and JPG format in resolution of 100x100 pixels on same CD)** with financial assurance under Rule 27 of MCDR' 2017 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

Scrutiny comment on Modification of Mining Plan including PMCP in respect of Patabeda (14ha) Iron Mine of M/s M.G.Mohanty.

GENERAL:

1. All the certificates/annexures should bear dated signature. Name of nominated owner should be furnished under applicant name. MCDR, 1988 should be replaced with relevant rules of MCDR, 2017.
2. The lease details right from the initial execution with documentary evidence should be furnished.
3. In page no.3 it is mentioned as lessee has two more mining leases, but in page no.4 it is furnished only one mining lease held. Correct the same.
4. The documentary evidence regarding the authorization of managing partner Shri R.L. Mohanty like resolution of managing partners should be enclosed as it is a partnership firm. The documentary evidence regarding the partnership firm like registration should be enclosed.
5. The document should be prepared as per the IBM Manual on Appraisal of Mining plan 2014, no alteration and deletion should be made in the chapters headings, paras.
6. In the review of earlier approved document para the details furnished under waste produced should be rechecked. The reasons for justification for increasing the production up to EC capacity quantity from the approved mining plan quantity should be furnished like due to market demand etc.,

GEOLOGY AND EXPLORATION:

7. The details furnished in page no. 17, 18 and 19 regarding the samples collected and analyzed of CBH/1 borehole should be rechecked. Further the No of samples collected and analyzed from pitting and trenching, boreholes should also be furnished and also the total no of samples analyzed in the NABL accredited laboratory should also be furnished with analysis report and certificate enclosed annexures in page no 18 table.
8. The year-wise drilled borehole details should be rechecked and corrected in page no. 20 in accordance with details furnished in page no. 18.
9. The documentary evidence should be enclosed regarding the expenditure incurred for exploration.
10. The lease area explored under different category of UNFC norms should be recalculated as per Part II point no.4 and part III of Minerals (Evidence of Mineral Contents) Rules, 2015 (MEMC, Rule 21015). The justification for area considered for G1/G2 etc. should be given properly. Accordingly, resource estimation under different level of exploration to be revised. Necessary corrections to be done at all relevant places of the document and resource estimation.
11. exploration proposal may be given as infilling boreholes in the proposed plan period 2019-20, 2020-21 along section lines DD', GG' for a proper grid pattern. some of the boreholes information like depth and depiction has not been shown properly for instance section no II', GG' boreholes CBH-16 (2018-19), CBH-15(2018-19) etc., rectify the same in concerned plans and sections.
12. The details furnished under page no.21 under para i) should be rechecked with guidelines of as per part-III of MEMC, rule 2015 for justification of G1/G2 areas..
13. Recovery and bulk density considered for estimation of reserves for ore, and mineral reject/sub grade with should be properly justified with documentary evidence viz., test reports carried out in NABL Laboratory.
14. The copies of Form -I and particulars of boreholes drilled till date and recorded in Form -J as per the format specified in MCDR 2017 should be furnished and enclosed as annexures.

MINING:

15. The Year wise stripping ratio should be furnished in t/cu.m format. The year wise excavation proposal should be given considering the depth of mineralization i.e. established reserves depth. Accordingly the pit design parameters should be modified.
16. The production proposed for the year 2019-20 in totality should be furnished keeping in view of already excavated material till date and proposed excavation figures for the remaining period which

should be in line with the mining plan. Necessary modifications should be made in the relevant text of the document and tables.

17. Geological Section wise of proposed ROM excavation quantity in for every year shall be provided. Sections may be equally spaced so that the entire area proposed for excavation may cover. The total excavation, OB/IB/waste, Ore, Mineral reject should be matched with section wise calculations and recover factors considered.
18. In page no.34 the bulk density considered for waste should be properly justified with documentary evidence viz., test reports carried out in NABL Laboratory.
19. Existing and proposed equipment/machinery with quantity and capacity should be furnished.
20. Conceptual workings should be modified according to the present established reserves only and lease period. Necessary modifications in the plans and sections should be carried out.

MINE DRAINAGE

21. Considering the topography of the lease area, it appears that the slope is towards East. Hence, a mine drainage plan to be submitted showing catchment area, flow direction of the water, location of final discharge, arrangement for arresting of solid waste etc. showing retaining wall, garland drain, settling tank, check dam etc.

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

22. The disposal of waste and mineral reject and soil to be furnished as per table furnished in IBM Manual appraisal MP 2014.
23. The details of all the existing dumps, Mineral reject dumps to be furnished in tabulated form .
24. The proposal for dumping may be given in tabulated format as shown below: Further, Build-up of dumps from year to year to be mentioned in text w.r.t. designed capacity of dumps, bottom and top mRL of individual terrace, dump slope, individual terrace height and slope with description of method & manner of disposal of waste should be mentioned. The method of waste dumping should be in retreating manner. The year wise buildup of dump should be described.

Year	Waste to be dumped (in m3)	Dump No	Location of dumping (coordinates)	Proposed area (m2)	Proposed dumping mRL.	No of terrace proposed.	Individual Terrace height	Slope of the terrace

25. The location of dumping/stacking of waste and mineral reject should be proposed in the non mineralized area with due justification of proven area of non mineralization.

PROCESSING OF ROM AND MINERAL REJECTS:

26. The material balance chart to be given with the quantity and quality of feed and recovery quantity and quality of the final product. The arrived percentage of recovery of saleable ore and sub grade ore should be justified properly with documentary evidence.
27. In page no 57 the material balance flow sheet provided is incorrect as feed is 250 tph and output is 150 tph. Check and rectify the same.

OTHERS:

28. Information in respect to the existing and proposed manpower right from management level to unskilled labour both on role and contractual has to be mentioned separately in the text.

PROGRESSIVE MINE CLOSURE PLAN:

29. Existing base line information to be furnished on the basis of environment monitoring parameter carried out. Further, base line information to be furnished for surrounding 500 meter form lease boundary.
30. In FA table the different heads should be kept as per the format specified in IBM manual appraisal 2014. The area under different heads should be rechecked and calculated properly for both at the start of review of mining plan period with date and additional requirement during the plan period. 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 same format table should be depicted in the FA plan.

PLATES (GENERAL):

1. Magnetic Meridian and date of observation with declination with true north should be given on all relevant plans. Date of survey should be given on all plans and sections and signature should bear date of signature. All plans and sections should be signed with date by certified Surveyor, Qualified Person, Mine Manager, Mining Engineer and Mining Geologist as per provisions of MCDR, 2017 and MMR, 1961. All plans & sections prepared should follow the conventions mentioned under MMR 1961. All plans and sections shall show a scale a scale of the plan at least twenty five centimeters long and suitably subdivided. Plan and section should be drawn on 1:1000 scale.
2. **LEASE PLAN:** The lease plan authenticated by competent authority of state government should be submitted.
3. **KEY PLAN:** The key plan should incorporate all features as mentioned Rule 32 (5) (a) of MCDR 2017. The prominent wind direction to be shown by rose diagram in key plan and other relevant plans. The approach road to the lease area should be shown with Co-ordinates of extremity of lease area. Minimum two grid lines should be shown on plan.
4. **SURFACE PLAN:** All the boundary pillars DGPS coordinates should be furnished along with UTM too. All the updated boundaries of mineral stack, Waste dump, to be shown on the plan. Surface right area to be shown on the plan with different type of land schedules. All the features have not been shown in the index. Common boundary with other lessees if any should be shown on the plan. The Surface Plan should be prepared to satisfy the provision as laid down rule 32 (1) (a) of MCDR'2017.
5. **DGPS PLAN:** With reference to CCOM Circular No 2/2010, The Geo-referenced mining lease map prepared using DGPS shall be superimposed on Geo-referenced vectorised cadastral map should be submitted.
6. **GEOLOGICAL PLAN & SECTION:** (i) Geological information to be highlighted in geological plan and section. All other information like contour, quarry etc. to be suppressed. All drilled BH, quarries and trial pits to be shown with red color and BH nomenclature with black color. (ii) Geo structural information has not been furnished adequately. (iii) Limit of estimation should be as per MEMC rule 2015. (iv) The redefined UNFC boundaries and UPL to be shown in Geological Plan and sections. (v) All the geological information to be furnished on geological plan based on drilled BH, exposed pit, trial pits etc with their configuration profile (dimensions) like depth. Section lines with nomenclature should be highlighted on the plan. Proposed boreholes should be shown in dotted line. Iron ore mineralization area should be clearly demarcated on the Geological plan. The Geological Plan should be prepared to satisfy the provision as laid down rule 32 (1) (b), (c) and (d) of MCDR'2017. Plan and section should be drawn on same scale. Vi) some of the boreholes information like depth and depiction has not been shown properly for instance section no II', GG' boreholes CBH-16 (2018-19), CBH-15(2018-19) etc., rectify the same
7. **DEVELOPMENT PLAN & SECTION:** (i) present pit profile configuration with UPL to be shown with red color and proposed development with some other color. All development section to be submitted for which development is proposed. (ii) The proposed and existing bench mRL to be shown clearly over year wise development plan and sections. (iii) Geological information to be furnished on development plan and sections. Plan and section should be drawn on same scale. iv) all the bench profiles for the year wise proposed locations should be shown on development plans and sections. The mineral stacks should be removed over the section profile for the proposed years. As they are temporary.
8. **RECLAMATION PLAN:** All revised year wise proposals as per comments in PMCP chapter to be depicted on the plan.
9. **ENVIRONMENT PLAN:** The Environment Plan as prepared should be satisfy the provision as laid down rule 32 (5) (b) of MCDR'2017. Wind rose diagram should be depicted.

10. **Financial Assurance Area Plan:** should be prepared in complying to point no.30.

ANNEXURES:

11. All the annexure to be properly numbered/paged and relevant annexure to be signed by Geologist/surveyor/QP etc.
12. A legible copy of photo id, address proof and signature proof of lessee to be enclosed.
13. Copy of previous approved mine plan & scheme of mining letter should be enclosed.
14. Copy of surveyor certificate should be enclosed.
15. Copy of EC, FC, CTO etc. to be enclosed. Environment monitoring data to be enclosed at least for last one year. Copy of surface right order. Certificate of surveyor. Approval letters of last MP/SOMs.
16. Recovery test, bulk density test reports carried out in NABL laboratory should be enclosed.
17. Common boundary working permission should be enclosed from statutory authorities.
18. Copy of bank guarantee should be enclosed. Photographs of boundary pillars should be enclosed.

In view of above, wherever necessary correction required to be made.

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N. Shid
26/11/19