



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. MRMP/A/52-ORI/BHU/2020-21

दिनांक / Date: 23.02.2021

To

Shri Jitendra Nath Patnaik,
Mine Owner, At/Post-Baneikela,
Joda, Dist-Keonjhar, Odisha-758038

Sub: Modification of Review of Mining Plan of Bhanjapali Iron Ore Mine along with Progressive Mine Closure Plan (PMCP) over an area of 18.00 ha in Sundargarh district of Odisha of Shri Jitendra Nath Patnaik submitted under Rule-17 (3) of MCR, 2016.

Ref: - i) Your letter no. JNP/2020-21/441 dated 17.02.2021 received on 22.02.2021.
ii) This office letter of even no. dated 22.02.2021.
iii) This office letter of even no. dated 22.02.2021 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 Review of Mining Plan along with Progressive Mine Closure Plan has been examined in this office by hri Sudip Ranjan 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 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 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 USB Pendrive/Flashdrive)** 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 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 / yours faithfully,

(HARKESH MEENA)

क्षेत्रीय खान नियंत्रक / Regional Controller of Mines

Copy for kind information and necessary action to:

1. Shri Pradeept Mohapatra, Qualified Person, World Consultancy Services, Plot No-766, At/Post-Telengapentha, Cuttack, Odisha-753051.

(HARKESH MEENA)
क्षेत्रीय खान नियंत्रक / Regional Controller of Mines

Scrutiny comments on examination of modification of Review of Mining Plan along with PMCP of Bhanjapali Iron Ore Mine of Shri J.N.Patnaik, over an area of 18 hectares in Sundergarh district of Odisha State

1. All the annexure, text and tables in the text have not been properly nomenclature/indexed/ numbered/ paged and signed by qualified person. Need to do the needful.
2. In Para 3.1. details to be furnished in following tabulated format.

Sl. No	Mining Plan / Scheme of Mining / Review of Mining Plan etc.	Area (in Ha)	Period of proposal in Financial Year	Submitted under Rule	Approval Letter No. & Date

3. In Para 3.2, details of the last modifications has not been furnished. Need to furnish the same.
4. In Para 3.3.1, the compliance of exploration proposal for 2019-20 and 2020-21 has not been furnished in detail regarding proposal furnished in diverted forest land un-diverted forest land. The reason for shortfall and action taken for compliance has not been mentioned. Further, the compliance of proposal for 2020-21 till the date of survey has not been mentioned and action taken for meeting the shortfall if any has not mentioned. Need to do necessary corrections.
5. In Para 3.3.2, the compliance of proposal for 2020-21 till date of survey to be mentioned as the financial year 202-21 is yet to be completed. Further, the proposal and compliance in the review should be rechecked and corrected. Need to do necessary corrections.
6. In Para 3.3, the compliance of the proposal for sub grade dump-2 rehandling and utilization of waste for filling the disturbed safety zone area as per modification of review of mining plan approved dated 18.08.2020 has not been furnished. Need to furnish the same with reason for deviation, if any.
7. In Para 3.6 and in introductory note, reason for modification is not justified as the proposal of lessee for dispatch of iron ore through stacking as per the provision of OMPTS Rule has not been described in detail. Further, the statement "it is required to propose stacking arrangement in the mining plan as per OMPTS Rule 2015" is incorrect and not justified as per provision of OMPTS Rule 2015. Therefore, in the reason for modification the lessee should clearly mention the proposed modifications as per the provision of relevant rules and thereby the changes affecting the proposed land use pattern, development, mineral conservation etc. if any. Need to do necessary corrections at all related places.

PART A: Geology and Exploration

8. Exploration proposal should be in accordance with the provision of rule 12 (4) of MCDR 2017. Further, exploration has not been proposed in the format specified in IBM Manual for Appraisal of Mining Plan 2014. In the table in page 16-17, 29 boreholes have been proposed for drilling in 2021-22 whereas in page 17, the summary of exploration proposal is furnished over two years 2020-21 and 2021-22. Need to correct the same.
9. Lease area exploration status as on date of survey has not been furnished in the following tabulated format. The exploration status of the mining lease area should be updated with drilling carried out in 2019-20 and 2020-21 after approval of modification of review of mining plan approved dated 18.08.2020. Need to do necessary corrections.

Item of information	Part of the Lease area applied for surrender explored as per UNFC norms (in Ha) as on dt.					Remarks/Comments including reasons for not carrying out the exploration as per UNFC norms.
	Total Lease area = A+B+C+D+E					
	G1 Level A	G2 Level B	G3 Level C	Explored and non-mineralized with level of exploration (Remarks) D	Unexplored lease area E	
Total Lease area:						
Area as per level of exploration						
No. of BH Drilled						
No. of BH considered for Resource Estimation.						
Meterage Drilled						
Grid Interval						
Scale of Mapping						
Reserve estimated after above exploration as on dated :						
Remaining Resource after above exploration as on dated:						
Total Reserve/Resource after above exploration as on dated:						

10. Reserves and Resources have not been estimated as per the provision of MEMC Rules, 2015. The updation of resources/reserves through drilling carried out in 2019-20 and 2020-21 has not been justified. The Form J as per MCDR 2017 for boreholes drilled in 2019-20 and 2020-21 along with chemical analysis report from NABL accredited laboratory has not been furnished. Need to recheck the estimation of reserves/resources through cross sectional method as per MEMC rules 2015 with supporting evidences in favor of parameters considered for resource estimation. Need to do necessary correction.
11. The reporting of mineral resources furnished in page 23-24 may be omitted. Further, justification of UNFC codes as per UNFC norms has not been furnished. Need to furnish the same.

MINING:

12. The details of existing waste dump should be furnished in following tabulated format.

Sl. No	Waste dump nomenclature	Location in UTM coordinates	Length (max) in m	Breadth (max) in m	Area occupied		Volume (in m3)
					(m ²)	(ha)	

13. In the development plan, the "temporary mineral processing and ore stack yard" has been proposed in the mineralized area and the same area has been proposed for development in 2021-22. Thereby, the site proposed within the UPL has not been justified. Further, the site proposed for "mineral processing and ore stack yard" and "mineral reject stack" has not been justified in light of mineral conservation and development. The same should be proposed in the text in relevant chapter and shown in plan. Need to do necessary corrections.
14. 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. Need to do necessary corrections.
15. In page no. 29, Grid location for development, sections considered etc. have not been furnished.
16. Dump rehandling has not been supported with dump plan and sections. The quantity of material to be rehandled should be supported with plan and section showing the detail calculation through cross sectional method. Further, calculation of dump rehandling from corresponding sections should be rechecked and corrected. Need to do necessary corrections.
17. Section and RL wise calculation of ROM production (Ore and Mineral Reject separately) and waste generation by cross-sectional method have not been furnished. Need to do necessary corrections at all relevant places.
18. In table 8.13, the break-up of areas in the Mining Lease for calculation of Financial Assurance is not as per the heads mentioned in the format specified in IBM manual for appraisal of MP 2014. Need to do necessary corrections.
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. In pursuant to the order dated 14.01.2020 passed by MoM, Gol, 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 it should be discussed during conceptual period of mines.

PROCESSING OF ROM AND MINERAL REJECTS

21. The material balance chart has not been furnished. 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.

PROGRESSIVE MINE CLOSURE PLAN

22. 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.
23. Reclamation proposal for disturbed safety zone area has not been furnished in detail. Need to do necessary corrections.
24. 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. Need to do necessary corrections.

ANNEXURES:

1. The annexures submitted are not legible. Need to submit the legible copies preferable colour copies. Further, the annexures have not been signed by Qualified Person. Need to do necessary corrections.
2. All the annexure has not been properly numbered / paged and relevant annexures enclosed does not match with the list of annexures. Need to do necessary corrections.
3. Few photographs showing Land use of the lease area, environmental status of the area has not been submitted. Need to submit the color copies. Copy of quality of air, water, soil, noise and other environmental a parameters monitoring report of the last year has not been enclosed.
4. Copies of IBM violation letters and show cause issued during the last five years and its compliances with supporting documents has not been submitted. Need to submit the same.
5. Copy of prefeasibility report as per Part V of MEMC Rules 2015 has not been submitted. Need to submit the same
6. Form I and Form J as per MCDR 2017 of the boreholes drilled during 2019-20 and 2020-21 (till date) have not been submitted. Copies of borehole sample analysis reports from NABL accredited laboratory for the boreholes drilled during 2019-20 to 2020-21 have not been submitted. Need to submit bore hole analysis report from NABL accredited laboratory. Need to do needful.
7. A copy of valid bank guarantee submitted is not legible. Need to submit the same.
8. Copy of annual return submitted should be omitted. Need to do necessary correction.

PLATES (GENERAL):

1. Magnetic Meridian and date of observation 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 & 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. 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. The index should be kept same in all the plans and sections.

2. **Key Plan:** The plan should be prepared on new toposheet showing the toposheet no. The approach road to the lease area, an administrative surface map showing the boundary of the mining lease, and the adjoining area lying preferably within five kilometers thereof etc. to be shown. Need to do necessary correction.
3. **Lease Plan and DGPS Plan:** The plans submitted are not legible. Need to submit the copy of the same from original plans.

4. **Surface Plan:**

A. Following changes are observed w.r.t to the modification of review of mining plan approved dated 18.08.2020.

- a) The surface right area shown in present draft modification is changed.
- b) Shape, size and location of excluded plots shown in present draft modification are changed.
- c) In the Violation letter issued of inspection dated 17/7/2020, violation of rule 14(3) was issued and subsequently lessee has submitted its compliance. The same is not reflected in the surface plan. All the pillars numbers have not been marked along the lease boundary. The mining lease boundary should be marked in continuous red color. UPL should be shown in surface plan.

The above deficiencies should be addressed and corrected. Need to submit the soft copy of the surface plan in Auto CAD format. Need to do necessary correction in text and plates.

B. Forest land, non-forest land, diverted forest land, surface right area etc. need to clearly demarcate in Surface plan. Need to do necessary corrections.

5. **Geological Plan & Section:**

- a) The Geological Plan should be prepared to satisfy the provision as laid down rule 32 (1) (b), (c) and (d) of MCDR'2017. Need to do necessary corrections.
- b) The area explored under different level of exploration as per UNFC norms have not been shown in plan. The unexplored area has not been demarcated. Lease area exploration status as on date of survey to be furnished in text should also be demarcated in Geological Plan.
- c) Proposed boreholes should be shown in plan and sections. UNFC codes, UPL should be shown in Geological sections. Need to do necessary corrections.
- d) The boreholes drilled in 2019-20 and 2020-21 should be shown separately in the index and plan. Geological sections should corroborate with the lithology shown in borehole logs. Scientific correlation should be done and reserves and resources estimated should be justified through geological sections. Need to do necessary corrections.

6. **Development Plan & Section:**

- a) Year wise mining plan proposal should be submitted in soft copy in the format of .kml or .shp file along with document. Need to do necessary corrections.
- b) The site proposed for dumping should be explored and proved for non-mineralization before commencement of waste dumping. Accordingly, necessary changes in exploration and dumping proposal to be furnished.
- c) Development plan and sections should be revised based on updated geological map and sections after complying the scrutiny points. UPL to be marked in development plan.
- d) The proposed and existing bench mRL has not been clearly shown over year wise development plan and sections.
- e) Existing and proposed protective measures and plantation should be shown in different colors around all waste dumps and mineral reject dumps. Index of safety zone boundary and surface right area should have distinct color.

7. **Environment Plan:**


The environment plan has not been prepared as per the provision laid down in rule 32 (5) (b) of MCDR'2017. Contours are not visible. The plan is not legible. Need to do necessary corrections.

8. **RECLAMATION PLAN:**

Existing and proposed protective measures and plantation should be shown in different colors along all waste dumps and mineral reject dumps. Index of safety zone boundary and surface right area should have distinct color.

9. **Financial Assurance Area Plan:**

The area degraded due to mining and allied activity and waste dump sites to be considered in FA calculation. The existing area and additional area under different heads should be shown properly under different coloured hatching.


(Sudip Ranjan Mazumdar)
Senior Mining Geologist