



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. MS/FM/44-ORI/BHU/2017-18

Date: 21.02.2018

To

Shri D R Patnaik, Mine Owner,
Ward No – 03, Rourkela Munivipality,
Raghunathpalli, Odisha- 758035

Sub: Approval of Review of Mining Plan of Murgabeda Iron Ore Mine along with Progressive Mine Closure Plan (PMCP), over an area of 15.378 ha in Keonjhar district of Odisha State, submitted by Shri D R Patnaik under Rule 17 of MCR, 2016.

- Ref: - i) Your letter No. Nil dated 06.02.2018.
ii) This office letter of even no. dated 06.02.2018.
iii) This office letter of even no. dated 06.02.2018 addressed to Director of Mines, Government of Odisha copy endorsed to you.

Sir,

This has reference to the letter cited above on the subject. The draft Review of Mining Plan along with Progressive Mine Closure Plan (PMCP) has been examined in this office based on site inspection dated 16.02.2018 by Shri Ramkishan R, Sr. Assistant Controller of Mines & Shri Dilip Jain, Junior Mining Geologist. The deficiencies observed are enclosed herewith as Annexure I.

You are advised to carry out the necessary modifications in the draft Review of Mining Plan in the light of the contents vide Annexure 1 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 Review 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 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 final copies of the Review of Mining Plan. It may be noted that no extension of time in this regard will be entertained and the 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.

Yours faithfully,

(HARKESH MEENA)

Regional controller of Mines

**Scrutiny comment on Review of Mining Plan including PMCP in respect of MURGABEDA
Iron Ore Mine of M/s Sri D.R. Patnaik in Keonjhar district of Odisha State.**

1. General:

1. On cover page Mining Lease Number/TC Number/Lease Number, Mine code if any, along with registration number as allocated by IBM under rule 45 of MCDR, 2017 needs to be mentioned. Further, address, e-mail, phone number, fax number of the lessee may be furnished on cover page. Further, summery of the proposals to be given before the introduction page.
2. The date of ML expiry to be mentioned as per executed lease deed. Further, the lapse order of the State government has been set aside by Revision Authority. The present status of the ML to be given with documentary evidence.
3. The coordinate boundary pillars may also be given in UTM.
4. Review page 8: The quantity of OB and ROM mentioned for review period does not match with the approved document. Further, for afforestation, the year wise proposal of afforestation and its compliance to be given. Check and rectify.
5. Para 3.4.2: The gist of violation pointed out by IBM and its compliance is not given for the review period.
6. CCOM circular number 2/2010 and its addendum regarding geo-reference mining lease map and ML boundary pillars to be implemented.

2. Geology and Exploration:

7. Page 18: it is mentioned that samples have been collected from different benches and face, however, location of same is not marked on the geological plan. The details in tabulated form to be submitted for sample collected form face and benches. The chemical analysis of same to be enclosed.
8. BH wise information of drilled BH to be given in tabulated form indicating Year, Collar coordinate, collar RL, type (Core/DTH/RC), section number, diameter, spacing, inclination, depth, whether mineralized or non-mineralized etc.
9. From geological plan and section it is observed that some of the drilled BH were terminated in Ore and not drilled up to the optimum depth of the mineralization. Hence, to explore the lease area depth ward infill exploratory drilling may be proposed up to the depth of the mineralization.
10. Proposal of the exploration given seems to be inadequate to explore entire lease area under G1 level of exploration. Accordingly proposal of the exploration may be revised to explore entire potentially mineralized area under G1 level of exploration as per rule 12(4) MCDR, 2017.
11. Page 21: The details of exploration to be given in accordance to the land schedule i.e. forest/non-forest/diverted forest/surface right area etc. The details of individual proposed BH to be given in following format:

Sl.No	Year	BH No	Northing	Easting	Collar RL	Core/RC/DTH	Meteage	Inclination	Forest/Non-Forest/ diverted Forest	Surface Right/ Non-Surface	Purpose of BH
1	2018-19	PBH 01									
2	2018-19	PBH02									
Total			-			Total BH	Total mts				

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. Same to be depicted on the Geological plan.

12. The level of the exploration to be depicted as per the M(EMC) rule 2015. Accordingly, table presented on page 19 showing area under different level of exploration to be revised. Particularly, the area considered under G2 level needs to be justified as there is no exploration.

MINING:

13. The details of all existing dumps like Sub-grade, waste, mineral reject etc. to be given with dimension and location (extent by coordinated).
14. The year wise grid location for proposed excavation to be given. Further, the layout of the haul road for present and future excavation proposal should be properly addressed in line with safe movement of fleet of the machinery.
15. The fleet of machineries required to modified as discussed during field visit. Further, the stripping ratio may also be given in T/Cum.
16. As existing subgrade material in the form of dumps should be propped for blending in the interest of mineral conservation.
17. **Mine Drainage:** 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.

4. Stacking of Mineral Reject/Sub-grade and Disposal of Waste:

18. The proposal of waste handling should be reviewed as discussed during field visit. Further, Build-up of dumps from year to year to be given in tabulated manner considering designed capacity of dumps, bottom and top mRL of individual terrace, dump slope, individual terrace height and slope.
19. The proposed location of SG dumping to be shown on the plan and reference of same to be given in text part of the document.
20. Details of existing and proposed retaining wall, garland drain, settling tank etc. to be given with their location along with proposal of maintenance of all existing retaining wall, garland drain, settling pond and check dam to be given.

6. Use of Mineral and Mineral Reject:

21. The physical specification as described by end-user industry to be given.

7. Others:

22. The details contractual and departmental manpower to be given separately.

8. Progressive Mine Closure Plan:

23. Para 8.3.1: the details of waste management and sub grade management to be given.
24. The report of the environment monitoring has to enclosed and reference of same to be mentioned. Updated air, water, noise, ground vibration and soil data with analysis from laboratory done periodicity for last one year to be enclosed.
25. The location and schedule of environment protective measure to be given in text. It is advised that most of the plantation work to be completed in year 2018-19 only. The year 2019-20 should be for post care maintenance only. Accordingly proposal may be revised.
26. Para 8.8, Page 80: The rule position for PMCP mentioned rule 23B (2) of MCDR, 2017 to be corrected as rule 23 of MCDR, 2017.

10. Feasibility Study Report

27. Feasibility assessment report should be prepared and submitted as per UNFC guideline considering all technical and economic parameters along with guideline as per CCOM circular 1/2006 and 4/2009 considering all technical, financial and economic parameters described in UNFC guideline and or as per parameter described in M(EMC) rule 2015.
28. The economic evaluation has not carried out properly. The details of Cost of production (1200 per tonne), Cost-Benefit analysis and financial appraisal needs to be carried out based on real time data.

8. Plates:

29. General: Relevant plans and sections should be signed with date by certified Surveyor, Qualified Person, Mine Manager and Mining Geologist. Further, a 25 cm scale suitably sub-divided should be depicted on all the plans and sections.

30. Magnetic Meridian and date of observation of should be given on all relevant plans. Further, the UPL should be shown in red colour in all relevant plans and sections.
31. Key Plan: The approach road to lease area has not shown. DGPS Plan: In submitted DGPS plan (plat II A), pillar coordinate in respect of the ML boundary pillars from 08 to 12 has not been furnished. Hence, a revised plan showing information of all boundary pillars to be submitted. Further, Page 1: As mentioned, authenticated broken up area plan is not enclosed as plate number -II(C).
32. **Surface Plan:** Forest/non-forest/diverted forest/private land/SR area to be shown. Latitude and longitude along with UTM coordinates of all the boundary pillars as per DGPS map to be mentioned in plan. Further, few pillars may be correlated with some permanent ground features giving distance and direction.
33. **Geological Plan & Section:** Geological plan does not illustrate geological feature of the area such as orientation of ore zone, structural information like strike, dip, dip-direction etc. All these information should be reflected on geological plan and section. Check and rectify. Further, the index in geological plan and section should be same. Further, the depth of the proposed exploratory and drilled BH to be mention at the end of the BH.
34. **Development plan & Section:** The layout of the haul road for present and future workings has not been depicted on the plan and sections. Further, existing position of waste dump and proposed dump (if, any) height is to be marked with mRL.
35. **Environment plan:** All feature as mentioned under rule 32(5) (b) of MCDR2017 to be depicted. Surface features and contour of adjacent mine has not been shown in core and buffer zone. Wind rose diagram to be depicted.
36. **Reclamation plan:** The color code for existing and proposed feature should be different. All existing sub-grade dumps/waste dumps to be shown. Accordingly, reclamation plan to be revised.
37. **Financial Assurance Area Plan:** The amount of financial assurance calculated is not as per rule 27(1) of MCDR-2017. The area degraded due to mining and allied activity to be considered in FA calculation. It should be re-calculated and submitted accordingly

9. Enclosures:

38. Page 01: It is mentioned that the broken up area of 14.074 Ha in the mining lease has been verified jointly by DFO, Keonjhar and DDM, Joda. The joint verification report to be enclosed. Further, The copy of RA order dated 11/05/2016 as mentioned on page 3 to be enclosed. Further, The copy of letter from Forest ranger for suspension of mining operation to be enclosed.
39. The copy of the qualification certificate in respect of the QP to be enclosed.
40. All the annexure to be properly numbered/paged and relevant annexure to be signed by Geologist/surveyor/RQP etc. It is observed that many of the annexures are not legible. A legible copy of same to be enclosed.
41. Certificate from the lessee should also include: The information furnished in the Review of mining plan and Progressive Mine Closure Plan is true and correct to the best of my knowledge and records. It is to undertake that all the measures proposed in this Progressive/Final Mine Closure Plan will be implemented in a time bound manner as proposed.
42. A legible copy of photo id, address proof and signature proof of lessee to be enclosed.
43. Copy of form I and J (year wise) as per MCDR, 2017 to be enclosed for all the drilled BH for ready and future reference as per Rule 47 and 48 of MCDR, 2017. The same should be signed by the Geologist appointed under MCDR, 2017. The section should be correlated with available information i.e BH data, surface geology etc.

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

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