



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/27-ORI/BHU/2017-18

Date: 10.11.2017

To

Shri S K Patnaik, Director,
M/s Patnaik Minerals Pvt Ltd,
P.O- Bonaikela, Joda,
Dist- Keonjhar, Odisha-758035

Sub: Approval of Review of Mining Plan of Jaribahal Iron Ore Mine along with Progressive Mine Closure Plan (PMCP), over an area of 106.533 ha in Keonjhar district of Odisha State, submitted by M/s Patnaik Minerals Pvt Ltd under Rule 17 of MCR, 2016.

Ref: - i) Your letter No. PMPL dated 17.10.2017.
ii) This office letter of even no. dated 27.10.2017.
iii) This office letter of even no. dated 27.10.2017 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 02.11.2017 by Shri Dayanand Upadhyay, 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 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 comments on examination of Review of Mining Plan of Jaribahal Iron ore Mine, over an area of 106.533 Ha of M/s Patnaik Minerals Pvt Ltd in district Keonjhar of Odisha State.

Text:

GENERAL

- i) On cover page complete details of lessee like residential and correspondence address, email address, contact number etc. to be furnished.
- ii) Chapter "Introduction": A brief review of status of Mining lease at present with supplementary lease deed may be given.
- iii) Page 10, para (c), reference the letter of State Govt. and same should be encoded as annexure regarding closing of mining operation.
- iv) A latest list of board of directors duly certified by competent authority along with address/contact nos. to be enclosed. Latest resolution w.r.t. nominated owner to be submitted.
- v) All the annexure to be properly indexed/ numbered/ paged and signed by qualified person. All the certificates should bear dated signature.

GEOLOGY AND RESERVE:

- i) Page-14, Para(c), shape and size of ore deposit has not been described with thickness and their variation along with dip & strike.
- ii) Page-15, the litho unit as described in text is not as per lithological succession as mentioned at page-14.
- iii) Page-16, Total area covered under exploration as depicted in tabular form may be re-checked. The area covered under G3 level has not been shown in geological plan. A note furnished below the table may be modified.
- iv) Page-17, Total bore holes drilled may be furnished yearwise with their location. Bore holes proposed may revise as discussed during field to the extent proving depth and lateral extension under G1/G2 level of exploration.
- v) Detail Exploration (G1 level) proposal should be given for entire potentially mineralized area under the mining Lease. Further, Area as shown explored under G1/G2 level of exploration is not as per MEMC rule 2015. Need to be revised.
- vi) All the drilled and proposed BH to be depicted on the Geological section along with mRL and its actual and proposed depth for better referencing.
- vii) Justification of different UNFC category to be given as per the guideline given in the Minerals Evidence of Mineral Contents Rules 2015.

- viii) Page 19 & 20, The reserve and resources furnished as per earlier mining plan in tabular form is not in sequence in column as furnished.
- ix) Page-20, It is mentioned pre-feasibility report while in annexure feasibility report has been enclosed.
- x) Page 21, In table of cross section wise mineable reserve under III category in column "F" geological reserve has been mentioned. It may be corrected.
- xi) Page 24, Final Reserves & resources estimated in tabular form is not matched with reserves & resources furnished at page no. 19 and 20. The date mention is also not correct.
- xii) Chemical Analysis Report of BHs samples should be enclosed from NABL Accredited laboratory or Govt. lab. as per guideline of "IBM manual on appraisal of Mining Plan-2014".

MINING:

- i) Page-25, In existing method of mining the reason of closure of mining operation may described briefly.
- ii) Page-26& 27, Details of existing quarry and dumps have not described with their dimension.
- iii) Page-28, proposed method for excavation has not been described properly. The nos. of benches in ore & OB, top & bottom mRL, nos. of quarries proposed may be described.
- iv) Page 31 & 32, development proposal as mentioned has not matched with the profile of cross-sections and mRL.
- v) In the development and production tables bench wise, year wise area of excavation and average thickness of the excavation or average area of cross section of bench and its average advance is to be given along with RL of bench with direction of advance at the end of the year.
- vi) The quantity of Sub-grade to be generated during conceptual period and its utilization and future planning for beneficiation may be given.
- vii) Conceptual mining plan, cumulative waste generation and top soil generation and protective measures have not been furnished.
- viii) Ultimate pit limit should be depicted on all relevant plans & sect

"Stacking of mineral reject/ sub grade material and disposal of waste"

- i) All existing Sub-grade dumps and waste dumps may describe with its location along with mRL in text. The top mRL of all above to be depicted clearly on plans.

- ii) 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.
- iii) The proposal given for construction of retaining wall, garland drain to be given in view of proposed spread of the waste dump/mineral reject and mineral stacks. Details of existing Waste dump, Sub-grade/mineral rejects etc. is to be given. Retaining wall & garland drain all along the dump.
- iv) Specific proposal for stabilization of dumps, by plantation, coir matting etc. should be given.

Use of Mineral and Mineral Reject:

Requirement of end-use industry to be given in terms of physical & chemical composition matching with proposed production of mine. Production of Lumps & fines to be specified with quantity and grade along with its proposed sell to end-use industries.

“Other”:

- i) Existing manpower both direct and contractual has to be mentioned in the text.
- ii) An organizational chart has to be provided for risk assessment study to whom communication to be made in case of any accident.

“Progressive Mine Closure Plan”:

- i) Amount of financial assurance should be calculated as per rule 27(1) of MCDR-2017 and submitted accordingly.
- ii) Proposed location of plantation to be mentioned in tabulated form in text part of the document and same to be depicted in reclamation plan.
- iii) Updated air, water, noise, ground vibration and soil data with analysis from laboratory done at specified periodicity for last one year to be enclosed.
- iv) There is nos. of stacks of Mineral reject/low grade ore/fines/screened fines lies in the mine. To dispose them, manner of disposal of Mineral reject/low grade ore/fines/screened fines etc. to be specified in terms of blending, beneficiation or selling to intermediate industries involved in up-gradation of mineral.

4. Plates(General):

- i) The plans and sections submitted do not bear the certificate that --the plans and sections are prepared based on the lease map authenticated by the state government.
- ii) All plans and sections shall show a scale of the plan at least twenty five centimeters long and suitably subdivided. All plans & sections prepared shall follow the conventions mentioned under MMR 1961.
- iii) Wind direction may show through wind rose diagram in key plan and environmental plan.
- iv) All plans and sections should be signed with date by certified Surveyor, Qualified Person, Mine Manager and Mining Geologist.
- v) Magnetic Meridian and date of observation of should be given on all relevant plans.

5. Key Plan/Lease plan:

6. The approach road upto the Mining lease may be shown.

7. Surface Plan:

- i) mRL of waste and sub grade dumps have not been shown.
- ii) Latitude, longitude of all corner pillars may be indicated on the plan.
- iii) Few pillars may be correlated with some permanent ground features giving distance and direction. Different land use may be shown with colour codes.
- iv) Forest & Non forest area, Surface right acquired area etc. should be marked clearly over a separate Lease Plan & Surface plan.

8. Geological Plan & Section:

- i) Geological features like strike, dip, dip direction etc to be marked clearly. Symbol as shown in plan not clearly marked in legends.
- ii) The UNFC has not been correctly depicted in geological plan. The reserve under G1 & G2 category and limits of reserves/resources under different codes may be marked on geological plan and sections in different colour codes.
- iii) mRL of bore holes have not been marked in plan and section.
- iv) The direction along which geological section has been prepared to be depicted on geological section.

9. Year wise development plan:

- i) As discussed during the filed visit, the profiles of development/geological sections are not matching with the plans at places. Verify and rectify.
- ii) Each year development proposal to be shown in different color. The UPL has been drawn without consideration of the mineralization. Profile of cross section not with bench mRL.

- iii) Existing position of dump and proposed dump height has not been marked with mRL.
- iv) Yearwise wise progress of sub grade and waste dump may show clearly with different colour.

v) Environment plan:

- i) The Environment Plan as prepared should be satisfied the provision as laid down rule 32(5)(b) of MCDR2017.
- ii) Surface features of adjacent mine has not been shown in buffer zone.
- iii) The proposed and existing environment protective measures to be shown in environment plan. The drainage pattern of the lease area also to be shown on the plan.

vi) Financial Assurance Area Plan:

Area as depicted in text for FA not matched with area given in plan. In the Financial Assurance plan area of each individual land i.e land degradation due to mining activity and processing unit etc at the end of plan period may be shown separately on this plan with highlighted boundaries and different colour codes for FA calculation.

vii) Reclamation Plan:

Year wise progress of dumping, stacks, afforestation using different colour codes for easy understanding may be shown.

viii) Conceptual plan:

Conceptual plan may be prepared considering mineralization as revealed from the borehole logs. One longitudinal section may also be submitted. Direction of run off from the area based on surface contours may be shown on the plan and the sections.