



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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BUSINESS HOURS: 10:00

No. MS/FM/33-ORI/BHU/2017-18

Date: 10.11.2017

To

Shri Ramesh Prasad Sao, Mine Owner,
Avani Signature, 2nd Floor, 91 A/1,
Park Street, Kolkata-700016

Sub: Approval of Review of Mining Plan of Guali Iron Ore Mine along with Progressive Mine Closure Plan (PMCP), over an area of 365.026 ha in Keonjhar district of Odisha State, submitted by Shri Ramesh Prasad Sao under Rule 17 of MCR, 2016.

- Ref: - i) Your letter No. RPS/HO/17-18 dated 30.10.2017.
ii) This office letter of even no. dated 31.10.2017.
iii) This office letter of even no. dated 31.10.2017 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 04.11.2017 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 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 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 of the Review of Mining Plan including PMCP in respect of Guali Iron Ore Mine, Area 365.026 ha. of Shri R. P. Sao in Keonjhar district of Odisha State.

GENERAL:

- I. Page-1, the document of lease transfer in favour of Shri R. P. Sao and lease execution as mentioned in para-1 of introduction chapter may be enclosed as annexure.
- II. The certificate furnished by qualified persons mentioned "The provision of the MCR 2016" which is to be replaced with the provision of MCDR 2017.
- III. Page-2, para B/3, It is mentioned that lessee has got environmental clearance of 5.7 MTPA saleable iron ore. The saleable iron ore may be replaced with ROM production.
- IV. Page-10, para (c), the coordinate of boundary pillars have not been furnished.
- V. Page-12, Para III/3/2, "Review of approved Mining Plan" Total waste as furnished in column 'F' not matched with column 'D'.
- VI. List of tables as depicted in different chapters may be enclosed with annexure.
- VII. All the annexures to be properly indexed/ numbered/ paged and signed by a qualified person. All the certificates should bear dated signatures.
- VIII. The extent and nature of surface rights being held by the Lessee to carry out various mining activities be indicated with documentary evidence.

GEOLOGY:

- I. Page-18, Para 1/5(i), details of prospecting like pits, trenches indicating dimensions have not been described.

- II. Page-19, expenditure incurred in exploratory drilling and details of samples analysis from NABL/Govt. laboratory has not furnished.
- III. Page-20, Total break up of lease area under G1/G2 as furnished in tabular form is not as per UNFC. The unexplored area and reason for not carrying out exploration as per UNFC has not been furnished in remarks column.
- IV. Reserve and resources as depicted at page no. 21 is not matched with the table at page no.-22.
- V. Page-21, Para1/9, it has been mentioned that lessee does not propose further exploration during 02 years period of review of mining plan. While it has been observed that out of total lease area 365.062 ha. only 130.258 ha. has been explored under G1 & G2 level of exploration. Therefore further exploration to be proposed to cover entire lease area under G1/G2 level of exploration.
- VI. Further detail Exploration (G1 level) proposal should be given for entire potentially mineralized area under the mining Lease.
- VII. The details like potentially mineralized area and its extent (coordinate in WGS 84), potentially mineralized area explored (in forest and non-forest area, Govt. land, Pvt. land etc.), remaining area to be explored.
- VIII. Accordingly, the UNFC boundaries have to be redefined and the same should be demarcated over Geological Plan and UNFC plan.
- IX. With the re-defined limits of UNFC boundaries, the mineral resources estimated as tabulated in page-54 of text based on the level of exploration with reference to threshold value of minerals declared by IBM has to be re-estimated.
- X. 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.
- XI. Justification of different UNFC category to be given as per the guideline given in the Minerals Evidence of Mineral Contents Rules 2015.

- XII. As per guideline of "IBM manual on appraisal of Mining Plan 2014" at least 10% of total samples to be analyzed in accordance to BIS and reports form NABL accredited/Government Laboratory. Accordingly, the proposal should be given under future exploration programme.

MINING:

- I. Page-59, Para 2/1, existing mining method has not been described with bench height and width, size of pits with their top and bottom RL.
- II. Page-59-61, description of proposed mining method has not been described in chronicle order as per guidelines. The table furnished under para-(ii) should descriptive. Total ROM production and recovery of saleable ore with percentage of sub grade generation and bulk density considered should be furnished in bullet notes.
- III. Page-60, Para 2/1/3, yearwise pit development program for the year 2018-19 & 2019-20 has been furnished together. It should be bifurcated yearwise with details of co-ordinates, cross-section considered, bench mRL etc in consolidated manner.
- IV. Page-61, Para 2/1/4, yearwise tentative excavation the ROM production has furnished blockwise. It should be yearwise in order considering both the block-A and block-B.
- V. Page-75, Para 2/8/3, Insitu excavation of Balishahi block-B has been furnished in table while Insitu excavation of Topadih block-A has not been furnished. The tables furnished at this page should be together with para 2/1/4, page-61.
- VI. 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.

- VII. As per IBM Manual Appraisal MP-2014, Chapter-2, Para-(e), "layout of mine working, pit, road, disposal of waste....." has not been furnished.
- VIII. Conceptual mining plan, cumulative waste generation and top soil generation and protective measures have not been furnished considering the life of mine As per IBM Manual Appraisal MP-2014.

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

- I. Location of mineral reject storage along with year to year development of the mineral reject dumps to be given.
- II. All existing mineral reject 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.
- III. 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.
- IV. Details Existing and proposed retaining wall, garland drain, settling tank etc. to be given with their location in terms of length, width and height year wise.
- V. It may be proposed to maintain the record of sub-grade or mineral reject stack register along with the grade. All the existing dumps in the mining lease should be analyzed from NABL accredited lab.

Use of Mineral and Mineral Reject:

- I. Page-90, Para-(b), total mineral reject present and generated during plan period is not correct. The mineral reject generated during plan period has been proposed to processing while in earlier chapter it has been proposed to stack. It is to be corrected.

- II. 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.

PROGRESSIVE MINE CLOSURE PLAN

- I. Page-101, Para 8/1/8, human settlement has not been furnished with population distribution pattern around mines area, male female ratio, literacy etc.
- II. Page-101, Para 8/2/1, land use pattern furnished in tabular form is depicted with area utilized/degraded at present.
- III. Page-105, Para 8/3/4, mined out land has not been furnished with present land under excavation and at the end of conceptual period.
- IV. Page-109, Para 8/2, it is observed during field inspection that there is sponge iron ore plant lies in the lease area and the area degraded by them is not considered under FA calculation. The area calculated under FA table should be re-checked. In column it is mentioned area put on use of start of modified review of mining plan is to corrected. Amount of financial assurance should be calculated as per rule 27(1) of MCDR-2017 and submitted accordingly.
- V. Updated air, water, noise, ground vibration and soil data with analysis from laboratory done at specified periodicity for last one year to be enclosed.
- VI. Under impact on land, cumulative land degradation at present, at the end of proposal period and at the end of conceptual period may be given referring to conceptual mining plan given in scheme of mining.

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.
- VI. Existing and proposed bench mRL to be mentioned in the all plans and sections.
- VII. The UPL should be shown in red colour in all relevant plans and sections.
- VIII. Approach road to lease area should be shown in key plan.

Surface Plan:

- i) Surface features as shown outside of lease boundary may deleted.
- ii) Information of boundary pillars in UTM coordinates as well as in Latitude and longitude of all ML boundary points should be depicted in tabulated form on surface plan. Further, the nomenclature of the grid to be given both the side of the grid.
- 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.

Geological Plan & Section:

- i) Data related to strike, dip, dip-direction etc. shown on the geological plans are inadequate. Some more data may be shown to understand the geology of the area.
- ii) In the Geological Plan UNFC boundaries, explored area, unexplored area, forest area, non-forest area, forest diverted area, drilled boreholes in black color and year wise proposed boreholes in relevant colors to be shown.
- iii) The proposed boreholes to be plotted in dotted lines in Geological sections along with Collar Id, RL and proposed closing depth at the bottom of the borehole.
- iv) In Geological plan, the contour to be shown over the entire lease area.
- v) The UNFC codes in geological sections are not legible enough. Accordingly, the proper UNFC boundaries to be shown in Geological sections.
- vi) The index of Geological features should be same in both Geological Plan and Geological sections and some index are missing.

Development plan & Section:

- i) mRI as marked in proposed and existing benches in some places in cross-section does not match with the plan.
- ii) Each year development proposal to be shown in different color. Composite development plan and section to be submitted.
- iii) N-S grid has not been marked in development sections and dump section.
- iv) Existing position of sub grade and waste dump and proposed dump height is to be marked with mRL.

- v) Yearwise wise progress of sub grade and waste dump may show clearly with different colour.

Environment plan:

- i) The Environment Plan as prepared should be satisfy the provision as laid down rule 32(5) (b) of MCDR2017.
- ii) Surface features of adjacent mine has not been shown in core and 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.
- iv) Contours should be shown in core zone.

Financial Assurance Area Plan:

The FA plan submitted is not properly demarcated. 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.

Reclamation Plan:

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

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.
