



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. MSM/FM/32-ORI/BHU/2017-18

Date: 15.11.2017

To

✓ Shri Kamaljeet Singh Ahluwalia,
Mine Owner, P. B No.3,
In Front of MMTC Weigh Bridge,
At/Post- Barbil, Keonjhar,
Odisha -758 035.

Sub: Approval of modification of Review of Mining Plan of Nuagaon Iron Ore Mine along with Progressive Mine Closure Plan (PMCP), over an area of 767.284 ha in Keonjhar district of Odisha State, submitted by Shri Kamaljeet Singh Ahluwalia under Rule 17 of MCDR, 1988.

Ref: - i) Your letter No. Nil dated 31.10.2017.
ii) This office letter of even no. dated 31.10.2017.
iii) This office letter of even no. dated 31.10.2017 addressed to the Director of Mines, Govt. of Odisha, copy endorsed to you.


Sir,

This has reference to the letter cited above on the subject. The draft of modification of Review of Mining Plan along with Progressive Mine Closure Plan (PMCP) has been examined in this office based on site inspection carried out on 03.11.2017 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 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 or JPG format in resolution of 100x150 pixels on same CD)** with financial assurance under Rule 27 of MCDR 2017 of the Modification of 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 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.

Yours faithfully,


(HARKESH MISHRA)
क्षेत्रीय खान नियंत्रक / Regional controller of Mines

Scrutiny comment on Modification of Review Mining Plan including PMCP in respect of Nugaon Iron Ore Mine, Area 767.284 ha. of Shri KJS Ahluwalia in Keonjhar district of Odisha State.

GENERAL:

- I. Document has been submitted under rule 17(3) of MCR 2016 therefore modification of review of Mining Plan should be mentioned in place of review of the mining plan on cover page and in text. The e-mail, phone & fax no. of lessee may furnish on cover page.
- II. The land details as furnished under forest and non-forest is not correct. Shabik forest may be included with separate figure.
- III. Page-3, Para-4, It is mentioned modification in scheme of mining under rule 17(3) of MCR 2016 which is to be corrected.
- IV. Page-18, Para 3.7, specific reason and justification for modification may be furnished.
- V. List of table as depicted in different chapter may be enclosed with annexure.
- VI. The extent and nature of surface right being held by the Lessee to carry out various mining activities be indicated with documentary evidence.
- VII. All the annexure to be properly indexed/ numbered/ paged and signed by qualified person. All the certificates should bear dated signature.
- VIII. "Mineral Conservation and Development Rules 1988" to be replaced with "Mineral Conservation and Development Rules 2017" in the content of different parts of the text.

GEOLOGY:

- I. Page-21, Local geology has not been described with stratigraphy. Adequate structural data to be provided
- II. Page-23, Para(h)(i), the bore hole proposal has been furnished yearwise upto 2019-20. Since the lease is going to expire in 2020 all the bore holes should be proposed upto financial year 2019-20 only.
- III. Page-33, computation of reserve/resources has not been furnished in tabular form considering the cross sections, MRL, area of excavation, volume of ore and overburden etc.
- IV. The details of exploration carried since inception of mining operation till 2017 to be given in tabulated form i.e. year, BH number, Location (Coordinate), nature of BH (Core/DTH), Depth (max-Min), mineralized/non-mineralized, Inclination etc. The relevant forms for intimation of borehole and borehole logs to be submitted as annexures.
- V. 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, proposal of exploration to explore remaining potentially mineralized area to be given with justification of adequacy.
- VI. Additional boreholes to be proposed where the existing boreholes have been terminated in ore zone and to ascertain the lateral extension and depth continuity of the ore zone along the section line.
- VII. The Geological boundaries of exploration limit i.e. G1/G2/G3 etc. are not marked as per Minerals Evidence of Mineral Contents Rules 2015. Same to be revised as per mentioned rule. Accordingly, the resource estimation calculation, geological plan and Sections need to be revised. Further, Specific date to be mentioned on which Reserve & resource is estimated.

- VIII. The quantity of different ore types and its proportion in lease area to be given. It is observed from geological section that some of the exploratory BH have been closed in mineralized area, hence, exploratory proposal in such area up to the end of the mineralization to be given. Further, proposal of exploration to be given/ revised as discussed during site visit.
- IX. The depth of the proposed boreholes should be adequate enough to justify the lateral and depth extension of the ore zone along and across the section lines up to the end of mineralization considering the geology and nature of ore deposit.
- X. Detail Exploration (G1 level) proposal should be given for entire potentially mineralized area under the mining lease.
- XI. 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.
- XII. The reserves & resources of different ore types with grade should be shown in tabulated format.
- XIII. A test report of bulk density analysis from NABL accredited lab/ Govt. lab may be submitted and described in text also.
- XIV. 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.
- XV. Reporting of Mineral Resources in the format prescribed in Part IV-A of Minerals (Evidence of Mineral Contents) Rules, 2015 to be submitted.

MINING:

- I. Proposed period of Modification of review of mining plan should be co-terminus with the existing approved proposal of mining plan which ending on 2018-19.

- II. Page-48-49, the environmental clearance of mine accorded by MOEF for 5.62 MTPA of Iron ore while the yearwise tentative excavation as furnished in table, the ROM is exceeded the EC limit.
- III. Page-49-55, computation of reserve/resources has not been furnished in tabular form considering the cross sections, MRL, area of excavation, volume of ore and overburden, tonnage factor etc.
- IV. The quantity of Waste and Sub-grade material mentioned in instant document should be as per the surveyed of certified surveyor. Accordingly, the detail dumps wise calculation certified by surveyor to be enclosed.
- V. There is no. of temporary ore stacks lies in the pit and other parts of the lease area, and covered large area. Therefore an undertaking may be furnished by lessee to remove the temporary stacks lies in the lease area and in the pit in time bound manner to facilitate the enhancement of production and conservation of mineral.
- 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. Bulk density of OB & ore and recovery factor has not been furnished in tabular format.
- VIII. Ultimate pit limit should be depicted on all relevant plans & sections.
- IX. It has been proposed to backfilling the gangeiguda quarry of Topadih block. Before backfilling of the quarry as proposed it should be ensured the exhaustion of ore body in terms of their depth & extension in the interest of mineral conservation.
- X. Back filling proposal has not been explained properly. Exhausted area to be backfilled by OB/Waste to be specified with mRL and area on year

to year basis with description of the method & manner of disposal of waste.

- XI. The quantity of mineral reject to be generated during conceptual period and its utilization and future planning for beneficiation may be given.
- XII. Conceptual mining plan, cumulative waste generation and top soil generation and protective measures have not been furnished. Restoration of safety zone under common boundary working may describe properly.

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

- I. All existing Sub-grade dumps and waste dumps may describe with its location alongwith 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 slop, individual terrace height and slope with description of method & manner of disposal of waste should be mentioned.
- III. Location of sub-grade storage along with year to year development of the SG dumps to be given.
- IV. Details Existing and proposed retaining wall, garland drain, settling tank etc. to be given with their location.
- V. The proposal given for construction of retaining wall, garland drain seems to be insufficient in view of proposed spread of the waste dump/mineral reject and mineral stacks. Hence, revised proposal may be given.

Chapter- "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. Back filling proposal of gangeiguda quarry of Topadih block has not been explained properly. Exhausted area to be backfilled by OB/Waste to be specified with mRL and area on year to year basis with description of the method & manner of disposal of waste. The proposed backfilling bottom mRL, top mRL, quantity of backfilling etc. may be given.
- II. Year wise plantation covering number of saplings to be planted, location and area covered may be furnished.
- III. Amount of financial assurance should be calculated as per rule 27(1) of MCDR-2017 and submitted accordingly.
- IV. Updated air, water, noise, ground vibration and soil data with analysis from laboratory done at specified periodicity for last one year to be enclosed.
- V. 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.
- 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 as shown in relevant plans is not correct. This is to be corrected.
- 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. The permission of change of scale other than prescribed scale has not been enclosed with annexure.

Surface Plan:

- I. Surface plan needs to be updated and all the drilled BH to be shown drilled boreholes in black color and year wise proposed boreholes in relevant colors.
- 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. Litho unit and their contact has not been shown. 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. All the already drilled boreholes to be shown in black color in all the relevant plans (Geological Plan, Surface plan, UNFC plan etc) and Geological sections. The year wise proposal for drilling to be shown in different contrasting color in both plans (Geological Plan, Surface plan, UNFC plan etc) and Geological sections. The color of the boreholes proposed in Geological plan should match with the plotted proposed boreholes in Geological sections.
- 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.
- VII. In Geological plan, the contour to be shown over the area wherever it is missed out.

Development plan & Section:

- I. Section along 900S and 1000S of plate no. 15A (Waste dump & Sub grade stack) ground profile like quarry surface RL etc not matched with plan.
- II. In section 1000N in plate no.15C position of quarry not match properly with plan. All the sections should be re-checked.
- III. The index of should be same in both development Plan and sections. Some of the index is missing. It is to be checked.
- IV. Existing position of waste dump and proposed dump height is to be marked with mRL.
- V. Yearwise wise progress of waste dump may show clearly with different colour.
- VI. Each year development proposal to be shown in different color.

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:

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.

15.1. Reclamation Plan:

- I. Reclamation plan has not been prepared as per guidelines. The necessary modification to be made as discussed in field during inspection.
- II. Year wise progress of dumping, stacks, afforestation using different colour codes for easy understanding may be shown.

15.2. 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.
