



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/48-ORI/BHU/2020-21

दिनांक / Date: 27.01.2021

To

Shri Harinand Rai, Director &  
Nominated Owner, M/s Steel  
Authority of India Limited,  
Ispat Bhawan, Lodi Road,  
New Delhi-110003.

Sub: Modification of Review of Mining Plan of Barsua-Taldih-Kalta Iron Mine (ML-130) over an area of 2486.383 ha in Sundargarh district of Odisha of M/s Steel Authority of India Limited submitted under Rule-17 (3) of MCR, 2016.

Ref: - i) Your letter no. SAIL/DTPRM/2021/018 dated 18.01.2021 received on 22.01.2021.  
ii) This office letter of even no. dated 22.01.2021.  
iii) This office letter of even no. dated 22.01.2021 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 based on site inspection carried out on 26.01.2021 by Shri G. C. Sethi, Deputy Controller of Mines and Shri 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. Dr. Rajesh Kumar Naik, AGM (Geology), M/s Steel Authority of India Limited, 02<sup>nd</sup> Floor, Project & Modernization Building, Rourkela Steel Plant, Dist-Sundargarh, Odisha-769011.
2. Shri Rajendra Prasad Mondal, Sr. Manager (Geology), M/s Steel Authority of India Limited, Basrsua Iron Mines, At/Post-Tensa, Ps-Lahunipara, Dist-Sundargarh, Odisha-770042.

(HARKESH MEENA)

क्षेत्रीय खान नियंत्रक / Regional Controller of Mines

**Scrutiny comments on examination of Modification of Mining Plan with PMCP of Barusa-Taldih-Kalta Iron Ore Mines over an area of 2486.383 Ha in Sundergarh District of Odisha State of M/s SAIL**

**GENERAL POINTS:**

1. The document has been submitted as "Modification of Mining Plan" but considering the reason for modifications, the document should be submitted as "Modification of Review of Mining Plan". Need to do necessary corrections at all related places in the document.
2. In Para 3.3, under review chapter, the reason for shortfall in exploration with due justification and action taken for completion has not been mentioned. Specific year wise proposal and compliance thereof for 2019-20 and 2020-21 need to be furnished. Need to do necessary corrections.
3. In Para 3.6, the specific reason of modification as discussed during inspection as per rule 17(3) of MCR, 2016 have not been mentioned. Need to do necessary corrections.

**Geology and Exploration**

4. The future exploration program to be revised incorporating the followings.
  - a) In the Geological Plan, the explored and unexplored area with level of exploration has not been furnished.
  - b) As per Rule 12 (4) of MCDR 2017, G1 level of exploration over potentially mineralized area under the mining lease has to be completed by 2021-22. Therefore G1 level of exploration need to be proposed over entire area in grid pattern as per exploration norms specified for minerals in Part III of MEMC Rules, 2015 to be completed by 2021-22 except those area already explored in G1 level. Any such above area after completion of G2 level of exploration as per UNFC in grid pattern if found fully non-mineralized (i.e. boreholes samples having Fe% less than threshold value declared by IBM), then such potentially non-mineralized area may not be proved further for G1 level of exploration. However, if the analysis of such boreholes samples has Fe value above threshold value for minerals declared by IBM than such area should be proved for G1 level of exploration as per proposal. Need to modify the exploration proposal accordingly in text and plates.
  - c) New core boreholes to be proposed in the location adjacent to existing drilled boreholes that have been either terminated in the ore zone or closed prematurely without intersecting the ore zone in depth those qualifying for delineation of G1 area. Need to necessary corrections.
5. In Page 32-38, the type of exploration should be rechecked and corrected complying the above points and as discussed during field inspection.
6. In page 48-49, the information furnished may be omitted and should be mentioned under existing stock details of low grade fine sin mining and stacking of mineral reject/subgrade chapter. Need to do necessary corrections.

**MINING**

7. Under Chapter 2 (A), the brief description proposed method for excavation with all design parameters indicating on plans/sections have not been mentioned that includes ROM production per annum, separate description of drilling, blasting, loading and hauling etc. The justification of site selection for proposed excavation has not been mentioned. Need to do necessary corrections.
8. The description of the existing Waste dumps/Mineral Reject dump/ fines or lump stocks in the following table to be furnished.

Existing stack of old dump fines with reference of joint inspection report

| Sl. No | Name of the dump | Location in UTM coordinates | Type of Ore | Volume in cubic meter | Tonnage Factor | Quantity (in tones) |
|--------|------------------|-----------------------------|-------------|-----------------------|----------------|---------------------|
|        |                  |                             |             |                       |                |                     |

9. Section wise and RL wise year wise calculation of excavation proposal of Ore, Mineral reject and Waste (OB/SB/IB) should be rechecked and corrected. The same should be furnished showing section number, RL considered, cross-sectional area, length of influence, volume, Bulk density and tonnage and recovery factor. Necessary calculation should be shown in tabular format.
10. In page 90, the details of processed mineral reject fines stack (old fines stack) should be mentioned with relevant information as per joint inspection report. Need to do necessary corrections.
11. In page 91, the proposed method of excavation should be modified considering the proposed changes in production quantity from Taldih and Kalta Mine. Need to do necessary corrections.
12. In page 96, the reason for modification has not been justified as year wise proposed production quantity from Barsua, Taldih and Kalta have not been shown specifically. Need to do necessary corrections.
13. In page 97, the dump re-handling has been proposed without any estimation of quantity and grade of mineral to be recovered. Due justification have to be submitted for dump-rehandling. Need to do necessary corrections.

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

14. In page 143, justification of dumping inside UPL have not been mentioned. Need to do necessary corrections.
15. In "use of mineral" chapter, the use of fines for pelletisation has not been described in line with orders issued for the same from Ministry of Mines, Govt of India and Department of Steel & Mines, Govt of Odisha etc. The Quality parameters of iron ore fines and lumps required by captive steel plants/ pellet industry etc. have not been justified. Need to do necessary corrections.

## ANNEXURES

- i) All the orders from Ministry of Mines, State Government and Minutes of Meeting held at state government regarding sale of subgrade mineral from old dump fines, sale of fresh fines, pelletization of fines etc. as referred in orders submitted in annexure, period of approval for such sale and quantity etc. have not been submitted. Need to submit all relevant orders as annexure to the document.
- ii) Copies of analysis report from NABL accredited laboratory has not been furnished.
- iii) Valid copies of bank guarantee should be submitted.
- iv) Copies of Statutory clearances

## PLATES (General):

- i) The conventions provided under the Metalliferous Mines Regulations, 1961, shall be used in preparing all plans and sections
- ii) All plans and sections should comply with the provisions of Rule 32 of MCDR 2017.
- iii) 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.
- iv) All plans and sections should be signed with date by Qualified Persons, Mining Engineer, Geologist, and Surveyor. Need to do necessary corrections.

## Key Plan:

- i) As discussed during inspection, the reference of topo sheet No of the lease area has not been marked and UTM North to be removed from key Plan.
- ii) The key plan should incorporate all features as mentioned Rule 32 5 (a) of MCDR 2017 and all features should be shown in index as well.
- iii) Approach road to lease area should be shown in key plan.

## Surface Plan:

- i) Few boundary pillars should be correlated with some permanent ground features giving distance and bearing/direction.
- ii) Existing boreholes have not been shown. Nomenclature of the existing waste and mineral reject dumps, Old dump fines etc. should be mentioned. Need to do necessary corrections.

## Geological Plan & Section:

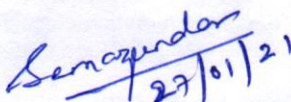
- i) Geological Plan should be updated with revised boreholes proposal as mentioned under future exploration program.
- ii) The proposed boreholes to be plotted in dotted lines in Geological sections along with proposed borehole number, RL and proposed closing depth at the bottom of the borehole. The year wise proposal for drilling to be shown in different contrasting color in both Geological Plan and Geological sections. The year wise color of the boreholes proposed in Geological plan should match with the plotted proposed boreholes in Geological sections.
- iii) UNFC Codes should be shown in Geological Sections.

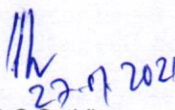
## Development plan & Section:

- i) The lithology of the area should be clearly shown in year wise development plan and sections in the area proposed for development.
- ii) UPL should be shown in year wise development plans and section, dump plan and sections etc.
- iii) The RL of the benches should be clearly shown in year wise development plan and sections.
- iv) The profile of development sections should match with the contour of the respective plans.
- v) UNFC codes should be shown in development sections.

## Environment plan:

- i) The Environment Plan as prepared should be satisfy the provision as laid down rule 32 (5) (b) of MCDR'2017.

  
(Sudip Ranjan Mazumdar)  
Senior Mining Geologist

  
(G.C. Sethi)  
Deputy Controller of Mines