Scrutiny comments in respect of draft modifications to the approved scheme of mining & progressive mine closure plan of Mahagiri Mines (Chromite) of M/s IMFA ltd over an area of 73.777 ha in Jajpur district of Odisha

GENERAL

- 1. The cover page title shall be rectified as modification of mining plan submitted under Rule 17 of MCR, 2016 and rest of the part is same.
- 2. Access routes to the lease area on topographical map has not been shown.
- **3.** Concerned reports regarding the environment monitoring shall be annexed. Photographs regarding achievement in afforestation, dump handling etc. shall be annexed.

GEOLOGY AND RESERVE

- **4.** Clarification shall be given regarding the estimation of reserves / resources are based on threshold value of +10 or +30% Cr₂O₃
- 5. Due to deviation in proposed exploration, future exploration programme shall be reviewed so that the potential mineralised area under the surface right held shall be fully explored as per UNFC guidelines, before expiry of mining lease.(guidelines of Ministry of Mines F.No.10/75/2008-MV, dated 23/12/2010)

MINING

- 6. As per site inspection it was observed that the opencast mine benches between boundary pillars E2&E3 towards south side of mine were collapsed. The same shall be updated in the plan. The corrective action plan in this regard shall be furnished.
- 7. The final report submitted on "Ground Monitoring by instrumentation and advice on stoping parameters of Mahagiri Mines (Chromite) of IMFA Ltd., is prepared in the month of November 2016, Whereas the stoping of T5 Block was not completed till that time. A comprehensive report on all rock mechanics parameters shall needs to be prepared & submitted after excavation of T5 stope block with post monitoring parameters.
- 8. Drilling and blasting pattern details shall be provided in development and stoping of underground workings. Powder factor and other technical details shall needs to be provided.

9. Ventilation details of the underground workings viz., development and stope workings shall be provided for the proposed working period.

10. Explain the details regarding the winding system.

11. Machinery details shall be provided with further productivity details.

Mine Drainage

12. Considering the undulating topography of the area from south to north elaborate the mine drainage pattern during monsoon season regarding the direction of water flow and amount of accumulation. The chapter shall also deal with existing and proposed dumps effect on mine drainage

<u>HANDLING OF MINERALS REJECT/ SUB-GRADE AND DISPOSAL</u> OF WASTE

13. Overall height of waste dumps with its slop angles, no of terraces shall be mentioned. Further adequate provision for Garland drain, retaining wall and check dams shall be given keeping in view of the proposed dumps to prevent wash-off of material.

PROGRESSIVE MINE CLOSURE PLAN

14. The reclamation plan for total area matured for reclamation shall be furnished.

Plates:-

General:

- 15.All plans and sections should be signed with date by certified Surveyor, Qualified Person, Mine Manager, Mining Engineer and Mining Geologist as per provisions of Rule 30 of MCDR, 1988 and Rule 66 of MMR, 1961. All plans & sections prepared shall follow the conventions mentioned under MMR 1961.
- **16.** All plans and sections shall show a scale a scale of the plan at least twenty five centimeters long and suitably subdivided. The scale of the plans and sections shall be as per guidelines of MCDR, 1988.
- **17.**DGPS survey map certified by ORSAC and state government shall needs to be submitted.
- 18. All plans and sections shall be updated to the last quarter.
- 19. Ventilation plan for underground workings needs to be submitted.

Surface Plan:

- 20. As per the field condition the opencast mine working area shall be updated.
- 21. All boundary pillars coordinates in UTM, Latitude and longitude to be shown in tabulated form on surface plan. Few pillars may be correlated with some permanent ground feature giving distance and direction.

Geological Plan & Section:

22.Structural details like strike, dip amount and direction of ore body to be shown in the plan.

23. The exploration carried out as per UNFC guidelines of different categories of reserves / resources to be shown in the plan. All the lithological units shall be clearly marked with visible distinction.

Development plans and Sections:

24. The development plan of opencast workings shall be updated as per the filed observation. Bench sliding and exact benches position shall be shown Progressive Mine Closure plan

25. Spot mRL to be mentioned in backfilled area.

Key Plan

26. Co-ordinates of extremity of lease area shall be shown on key plan. Radius of 500 m radius was shown shall be corrected as 5 km radius, Population density of villages shall be shown on the plan.

ENCLOSURE:

27. Few photograph of the Boundary pillars, present land use to be attached.

E- mail: ro.bhubaneshwar@ibm.gov.in

भारत सरकार खान मंत्रालय भारतीय खान व्यूरो क्षेत्रीय खान नियंत्रक का कार्याालय

No. MSM/FM/17-ORI/BHU/2016-17

Plot No. 149, Pokhariput Bhubaneswar – 751 020 Date: 14 .02.2017

To

Shri Chitta Ranjan Ray, Nominated Owner, M/s Indian Metals & Ferro Alloys Ltd, IMFA Building, Rasulgarh, Bhubaneswar – 751010

Sub: Approval of modification of approved Scheme of Mining of Mahagiri Chromite Mine along with Progressive Mine Closure Plan (PMCP), over an area of 73.777 ha in Jajpur district of Odisha State, submitted by M/s Indian Metals & Ferro Alloys Ltd under Rule 10 of MCDR, 1988.

Ref: - i) Your letter No. IMFA/MPC/17/26 dated 25.01.2017.

ii) This office letter of even no. dated 27.01.2017.

Sir,

This has reference to the letter cited above on the subject. The draft of modification of approved Scheme of Mining along with Progressive Mine Closure Plan (PMCP) has been examined in this office based on site inspection carried out on 11.02.2017 by Ramkishan R, Senior 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 approved Scheme of Mining 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 23 F of MCDR 1988 of the Modification of Approved Scheme of Mining 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 approved Scheme of Mining 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 approved Scheme of Mining. It may be noted that no extension of time in this regard will be entertained and the modification of approved Scheme of Mining 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,

क्षेत्रीय खान नियंत्रक / Regional controller of Mines