

Scrutiny comments on the modification in the Mining Plan of Birida Graphite ore, Area 45.753 ha belonging to Sri Sibananda Pradhan situated in Dist. Rayagad, Odisha.

1. Chapter “Introduction”: A brief review of status of Mining lease at present with documentary evidences may be given.
 2. Para 3.3, Chapter-3 “Modification of Mining Plan approved.. under rule 12” may be corrected.
 3. Para 3.6, Chapter-3 “Mining Plan is prepared under rule 15 of MCR,2016” may be corrected.
 4. Under para 3.6, reason of modification in lieu of amended MMDR Act 2015 should be described.
5. Chapter-4, “Geology & Exploration”:
- a) The modifying factors to change the UNFC codification on the basis of cross-sections may be dealt properly with reference to earlier approved modified mining plan.
 - b) The complete lease area should be proposed to cover under exploration to quantify reserves /resources with cut of grade corresponding to threshold value suggested by IBM. The spacing of bore holes as proposed to explore the remaining area are not satisfying the G-2 level of exploration which may be modified.
 - c) A prominent nallah passing within lease area which may be protected with 7.5m of barrier and therefore reserve/resources may be modified accordingly.
 - d) The existing bore holes may be proposed for deepening to prove the extension of ore body in depth.
 - e) The average weighted grade of minerals under UNFC code 111 & 122 may be furnished in reserve calculation.
6. Chapter-5, “Mining”:
- a) The average weighted grade of minerals to be excavated and the grade of mineral rejects may be depicted.
 - b) Under Para 5.1.2 ROM/Waste Ratio not matched with actual ROM/Waste.
 - c) The benches in OB and ore should be marked in different colours in development plan.
 - d) An undertaking must be furnished that as and when surface right will be acquired the temporary infrastructure will be shifted on non-mineralised ground.

- e) 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 at the end of the year.
7. The site of the dump as proposed should be proved on non-mineralised ground.
 8. Chapter-7, “Stacking of mineral reject/ sub grade material and disposal of waste” : Stacking of mineral reject/ sub grade of Graphite ore should be in lieu of threshold value notified by IBM. **Threshold value fixed for Graphite ore for flaky variety is 2% F.C (min.) and for amorphous variety 10% F.C (min.).** Therefore all the text may be modified accordingly.
 9. Chapter-7, “Other”: A site office and staff colony as proposed may be indicated in plan.
 10. All the annexures enclosed should be properly indexed.

Plates:

1. 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.
2. All the plan & sections prepared bear the signature of certified surveyor.
3. **Plate no.2- Location Plan/Key Plan:**
ML area may be marked with red colour. The approach road upto the Mining lease may be indicated.
4. **Plate no.3 - : Surface Plan:**
Latitude, longitude of all corner pillars may be indicated on the plan. Acquired area may be marked clearly. Few pillars may be correlated with some permanent ground features giving distance and direction. Different land use may be shown with colour codes.
5. **Plate no 4 & 4A - : Geological Plan & Section:**
Spot levels at sufficient no of places in the pit at the toe of benches may be shown. The reserve under G1 & G2 category and limits of reserves/resources 111 and 211 marked on geological plan and sections in different colour codes. Section along X8-Y8 may be modified considering the 7.5m boundary along the nallah. Grid may be followed.

6. Plate no -5 & 5A : Year wise development plan:

Excavation in ore and OB is not clear hence on year wise plans and sections ore and OB may be marked. Show position of faces and bench Rls at the beginning and end of the year distinctly with direction of advance and individual year workings with colour code. Spot levels at sufficient no of places on original surface, in the pit, and at the toe of benches may be shown so as to ascertain the average depth of excavation in a particular bench.

7. Plate No. 6: Reclamation Plan:

Year wise progress of backfilling, dumping, dump re handling, afforestation, environmental protection measures using different colour codes for easy understanding. Year wise proposal for dumps to be handled may be shown.

8. Plate no 7- : Environment plan:

The Environment Plan as prepared should be satisfied the provision as laid down rule 28(5)(b) of MCDR'88.

9. Plate No.8: Conceptual plan:

This may be prepared considering mineralisation 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.

10. Plate no.9 - : Financial Assurance Area Plan:

Show fresh (virgin) land degradation due to mining activity working/dumping /reclamation and rehabilitation etc at the end of 5 year on this plan with highlighted boundaries and different colour codes for FA calculation.