

Scrutiny comments on the Modified Mining Plan of Thimmapur Limestone Mine, ML.No-2272/2481, over an area of 15.641 ha in Non forest, A category Fully Mechanized Mine situated in Thimmapur Village, Mudhol Taluk, Bagalkot District of Shri.P.H.Pujar submitted for the period 2017-2018 to 2019-2020.

General:

1. All the annexure to be properly indexed/ numbered/ paged and signed by qualified person. Plate & Annexure Nos are wrongly filled in some places.
2. Page-1: it is mentioned under General para the lease period will be 50 years and lease will expire on 18.06.2050. The letter in this regard from State Government may be furnished.
3. The valid EC has not been explained in any chapter. Instead of SEIAA its wrongly mentioned as MoEF & CC.

Location & Accessibility:

4. Para-2.a:- The deemed extension of the Mining Lease upto 18.06.2050 and date of execution of lease deed & Supplementary Lease deed may be marked as annexure.
5. Page-5: The Co-ordinates for Boundary pillars is shown under DGPS & Lease area Latitude & Longitude are not matching, hence it has to be corrected based on DGPS co-ordinates only. DGPS plan is not enclosed. The type of land & survey number of lease area, ownership right should be given as per form-I & IV/ Govt. revenue records & copy should be annexed.

Details of approved Mining plan/ Scheme of Mining:

6. Last 5 years violations, show cause and there compliances have to include Para 3.4 and copy is also to be enclosed as annexure.
7. Para-3.3:- It has been mentioned that in 2015-2016 to 2016-2017, there is no proposal for reclamation, but during MCDR Inspection it was observed that backfilling was carried out in the first bench nearer to Boundary Pillar-4 and same has been intimated through Violation & Showcause Notice.
8. 200 Nos of plants has been planted in Safety Zone area, but how much area has been planted is mentioned as "Nil".
9. Para-3.6:- Reason of Modification under 17(3) of MCR 2016 may be described properly. Plan period is wrongly shown.

Geology and Exploration:

10. Page-12:- It is mentioned Black cotton soil cover available in Lease area from 1 to 2m, but generally the black cotton found in surrounding area is from 0.5m to 1m only. For Survival rate of plants in page-8 it is mention that the area is rocky terrain. These two statements are contradictory.
11. Proposed 2 Nos of Boreholes are insufficient to upgrade reserves to G-1 level and the lease area is not regular deposit, hence borehole has to be drilled in 50m grid intervals to find out the Contact Zone of Limestone & Dolomite. Out of 8 boreholes, only 3 have been drilled in Limestone, in that 2 Boreholes has drilled in contact Zone. Based on that Resources cannot be categorised under G-2 Exploration.
12. UPL has proposed upto 520m, this should considered in between Borehole-3 & 4 and balance area UPL has to considered only 548m based on existing pit depth.
13. Detailed estimation table for reserves & resources as per UNFC has to be given in text. Minerals (Evidence of Mineral Contents) Rules 2015 has to be followed for exploration grid interval for UNFC reserves & resources estimation.
14. Page-19:- Instead of tons, lakhs has shown in Budget for proposed mining table.
15. Recovery has been considered as 75%, whereas in last approved plan it is 95% recovery and last 2 years production of Limestone and Dolomite is 2,31,649 tons and waste quantity is 38,050 tons. The average recovery for both mineral is 85% only. Hence this much recovery difference has to be justified.
16. Intercalated waste is proposed for 25% but none of the Borehole log, waste is not encountered.

17. Page-21:- Last two years 61,971 tons of Limestone has been exhausted, but the sectional area is increased when compared to previous documents without any additional proved area. Instead of G-2, G-1 has wrongly shown.
18. Lease deed Sketch copy shows 50m safety Zone for Village road passing adjoining to Lease area from Boundary Pillar-5 to 6. But in Page-21, safety zone has been considered only 7.5m. Whether any special conditions have been obtained from State DMG for reducing 50m safety Zone to 7.5m may be enclosed.
19. 50m Safety Zone has both Dolomite & Limestone Pit, whereas any information has been given to State DMG for Mining in Safety Zone.
20. Reason for decrease in Reserves and Increase in Resources from previous plan period may be explained.
21. Detailed estimation sheet for reserve and resources need to be furnished showing sectional area as per UNFC category, influence, BD, recovery factor, location on plan & sections etc. The basis of bulk density and recovery factor should be given on the field tests conducted for minerals. Cut-off grade based on market conditions, mining losses may also be considered for estimation of reserves & resources.
22. The Reserves/ Resources have to be re-estimated upto 548m RL only, because boreholes are drilled at irregular grid interval. No extrapolation of extreme borehole has to be considered for estimation of reserves & resources.
23. The complete lease area should be proposed to cover under exploration to quantify reserves/ resources with cutoff grade corresponding to threshold value suggested by IBM within this plan period.

Mining:

24. It has been proposed to enhance the production from 35,000 tons to 1,50,000 tons. Proper justification is needed for quantum jump in production proposal.
25. The present mine workings done unsystematically & height of benches are not properly maintained in the lease area. Therefore the proposal for regularization of development of these benches in the First year of plan may be indicated.
26. The proposed production & development, area, co-ordinates have to be revised based on updated reserves & resources.
27. The mine is proposed to work with fully mechanized and crusher is outside the lease area and how the 25% intercalated waste will remove from ROM without any beneficiation. This 25% intercalated waste is included in ROM; therefore total Mineral exhaustion is 2 lakhs/ annum.
28. Page-25:- Table shows the ROM to Waste ratio; it should be changed as Ore to OB ratio only.
29. It is proposed in 2019-2020 to work in common lease boundary with ML-2380, actually proposed area is in 7.5m of safety barrier zone, before proposal there should be valid permission from DGMS and combined working plan has to be enclosed.
30. Dumping inside mine lease area on mineralised area should be of temporary nature, with time bound proposal for its rehanding.
31. Production has proposed in Section D & E whereas in plan section-C also shown as working .
32. The conceptual planning is based on permission from DGMS for common boundary working with adjoining leases of lessee & other lessee. Copies of the permission have to be enclosed.

Stacking of Mineral Reject/ Sub Grade materials and Disposal of waste:-

33. Intercalated waste is consists of Murrum & Low Grade Limestone with high Silica. Analysis of the intercalated waste to be enclosed and how much percentage of Murrum & Low grade is present in intercalated waste.
34. During approved scheme period, last two years has produced about 38,050 tons of intercalated waste, in that how much quantity of low grade Limestone is available.
35. Page-37, mentioned entire ROM will be suitably blended and dispatched, but 25% of ROM is proposed as intercalated waste. The year-wise generation of mineral rejects/ subgrade quantity with tentative grade of material should be given in tabular form. It should be discussed in brief

regarding utilization of ROM quantity with grade & blending with higher side as per year wise proposed planning. The tentative grade of waste & intercalated waste should be given in year wise tables.

36. Dumping proposal should be in such a manner that low grade ore dump should not be mixed with waste. The dumping of waste should be on non-mineralised area.
37. All the existing dumps in the lease area should be analysed from NABL accredited lab and according Low grade should be differentiated.
38. Proposed dumping area is already afforested area. Retaining wall & garland drains may be proposed around dump yards.

Use of Mineral & Mineral Rejects:-

39. Requirements of end use industry have to give along the physical & chemical compositions.

PMCP:

40. Existing land use pattern, location of different monitoring stations as per IBM/ MoEF guidelines for EMP and frequency of monitoring may be discussed. Proposal for construction of suitable dimension of embankment/ parapet walls, fencing near road should be discuss.
41. Financial Assurance: - the copy of original valid bank guarantee for A-category mine should be submitted in final submission in the form of Annexure. The total area of lease in 15.641 hectares but additional area of 2.020 is requirement and it is more than total lease area which is incorrect.

Plates:

1. DGPS Plan: the copy of DGPS plan duly authenticated by state government is not submitted.
2. Lease plan and Surface plan mismatching with each other's, i.e, 50m safety barrier has been given in the Lease plan, whereas in the Surface plan it is only 10m. 50m Safety barrier has to include in all plans & sections. UPL is to be changed; Production plan has to be change after the leaving 50m safety zone for Village Road.
3. In Geological Plan & Sections there is no available of intercalated waste lithology, but in production proposed table quantity is given for 25% from ROM. Borehole RL are mismatching with Borehole Logs. Lithology not filled in Section-C.
4. Previous approved plan is prepared after DGPS survey only, but present plan is having 5m differences in RL from previous one. Same has been for backfilling also, last plan shown and present not shown.
5. Longitudinal and Geological sections are not coinciding with each other, i.e, BH-7 has dolomite in Geological section and Limestone is present in Longitudinal.
6. Plate-6, Road gradient has proposed 1:16, but that much space is not given for year wise production & development plan. Proposed Dolomite pit profile also has to be show in plan for clear idea.