

SCRUTINY COMMENTS ON MODIFIED MINING PLAN OF THATHIAYA IRON ORE MINE OF SMT D. RADHA BAI,(ML.NO.1508,OVER AN AREA OF 25.00 HA (AS PER CEC)/ 24.28 HA, AS PER THE ML DEED,MANCHIKATTE VILLAGE, CHIKKANAYAKANAHALLI TALUK OF TUMKUR-DISTRICT, KARNATAKA STATE. SUBMITTED UNDER RULE 16(1) & APPROVAL UNDER RULE 17(3) OF MCR,2016.ML FALLS UNDER RESERVE FOREST, FOR THE PERIOD FROM OCTOBER,2016 TO 2017-MARCH, 2019.

1. **Cover page:** The period of document should be corrected as “From Oct 2016 to March-2017 to 2018-19”, already 6 months period in the present financial year is getting over. In the light of the above remarks, the text paras and the plates may be checked and corrected, wherever applicable.
2. The Forest land should be written specifically mentioning the type of forest land, whether RF or ordinary forest, instead of just giving forest land.
3. The category of the mine should be written as A- (OTFM-other than fully mechanized mine).
4. **Introduction:** The proportionate production i.e. 20,000 tonnes should be proposed for year 2016-17 (Oct 2016 –March-2017) considering six months period of present financial year is getting over. The present modification should be dealt clearly, indicating the previous approved document, the period for which it was approved, various proposals made and implemented if any may be dealt, including the present proposals for enhancing the production and the reserves/ resources if any, and the ML valid period as per the MMDR Act amendments 2015 may be indicated.
5. Para 3.3: Few photographs in support of implementation of R & R plan should be enclosed.
6. The list of annexures furnished in the table, may be added with number pages in each annexure for reference.
7. Annexure-5, pertains to the monitoring committee, under DMG, it should be furnished correctly.
8. Annexure-6 pertains to the DMG for enhancement of production, which should be said so in the letter.
9. Annexure-14 should be brought out in the main pages.
10. Annexure-9 may be deleted from the list and replaced with the educational qualification certificate and experience certificate as rule 15 of MCR, 2016.
11. Annexure-X, may be added with name of the mine & lessee and also in other photographs enclosed as annexure for clarity.

**Part-A**

12. Para 1(a): Drainage pattern, vegetation, climate and rainfall data of the area should also be discussed in brief as per Universal format.
13. Para 1(e) (i): Annexure number of float ore grade and recovery factors mentioned may be checked and corrected w.r.t. enclosed list of annexures.
14. Para 1(i): The area cover under G-1 level of exploration w.r.t. total mineralized area has not been mentioned. As discussed during site inspection, the exploration should be proposed to convert resources into reserves as per Minerals (Evidence of Mineral Contents) Rules 2015 and accordingly proposal should be given in tabular format

of “Universal Format”. Further, the proposed expenditure likely to be incurred towards exploration should also be mentioned.

15. Para 1(j): (i) Bulk density should be determined based on field tests conducted and confirmed. (ii) Feasibility mineral resources (211) as mentioned in geological plan /sections have not been considered for estimation. (iii) Depth projection of iron ore reef for resources estimation may be reviewed based on exploration output with proper justifications. Accordingly, the reserves/resources should be reconciled.

16. Para 1(l): (i) Sub-paras (a) to (c) have not been discussed as per Universal format. (ii) Foot note as per universal format may be incorporated below Table no-25.

17. Para 2: The production and development proposals for period “from Oct 2016 –March-2017 to 2018-19” considering block period of earlier approved document. The proportionate production i.e. 20,000 tonnes should be proposed for year 2016-17 (Oct 2016 –March-2017) considering six months period of present financial year is getting over. Accordingly, the necessary correction should be made in this chapter and all relevant plates.

18. Para 2 (f): (i) The Conceptual Mine planning should to revised to end of ML period i.e. up to **31/03/2020** as per universal format. (ii) Quantity of generation of wastes and their location of disposal/stacking at conceptual period should be revised. (iii) Land use pattern table for modified mining plan and conceptual period may be revised. Grand total row may also be incorporated in the table.

19. Para 3 (b): The maximum depth of working during this modified mining plan period and conceptual plan period may be checked and revised as per the proposals.

20. Para 4 (a) : Year-wise generation of wastes / mineral reject should be presented in standard table as per “Universal format”.

21. Para 4(b): The quantity of generation of wastes during modified MP period and conceptual period should be checked and revised.

22. Para 4(c): Proposed environmental protective measures for dump management such as construction of retaining wall, garland drain, and geo-textile etc have not been discussed.

23. Para 8.1: Presence of seasonal nalla or surface water body if any, should be mentioned under “Water regime”.

24. Para 8.2: (i) location of old workings and proposed location dumping should be checked and corrected w.r.t. proposals. (ii) Mitigate measures to be taken for control of air, water and noise pollution may be indicated in separate para.

25. Para 8.3.1: Any part of pit has not been matured for back-filling so far. The same may be clearly mentioned in this para. The surface dumping during present modified Mining plan period may be properly justified.

26. Para 8.3.2: Mentioning of no proposals of new area for mining should be checked and corrected.

27. Para 8.3.5: (i) The proposed year-wise summary of the protective measures for reclamation and rehabilitation works such as maintenance of existing as well as proposed retaining wall at toe of dump, garland drain at toe of dump, gap afforestation and geo-textile etc should be reflected properly. (i) Column related to Actual nos of existing protective measures within ML may also be incorporated in table. Further, mentioning of scheme period may be checked and corrected as “Review and up-dation of MP”

28. Para 8.6: (i) The additional area requirements during modified mining plan period should be checked and corrected w.r.t. revised proposals. Further, the additional area requirement for Green Belt may be checked and corrected as figure mentioned at end of plan period is not matching. (ii) The detail of B.G. already submitted to IBM has not been discussed with appending the photo-copy.

#### **Part-B**

29. Undertaking from the lessee: (i) Undertaking for compliance of CCOM’s Circular No-2/2010 has not been incorporated. (ii) The mentioning of “The RCOM, IBM, Nagpur” may be replaced as “The RCOM, IBM, Bangalore”. (iii)An additional undertaking from lessee stating the time-bound implementation of CEC approved

Reclamation & Rehabilitation Plan and monitoring / maintenance of protective measures already implemented, may also be incorporated under para 9.

30. Name of certificate from RQP should be replaced as “certificate from QP”.

**Annexures:**

31. Copy of EC and other statutory clearance if any have not been enclosed

32. Annexure-14 (reserves and resources estimation) and Annexure-16 (Production & development estimation) should be modified as per relevant scrutiny comments.

33. Proper justifications have not been given for submission of earlier old environmental monitoring data.

34. **Feasibility Study Report:** (i) Future exploration proposals, reserves and resources figures and production schedule should be revised/modified. (ii) Para 6: The capacity of crushing and screen plant should be checked and corrected w.r.t. chapter No 6. (iii) EC, FC and other statutory clearance status should be discussed under para 9 (iv) **Economic Evaluation chapter:** The items of cost of production should be as per Annual Return which includes payment of 30% of royalty to District Mineral Foundation and 2 % of royalty to National Mineral Exploration Trust. Accordingly, the economic viability of the project may be interpreted with NPV and IRR.

35. Key Plan (Plate No.1): The approach road to the ML area need to be indicated with approximate distance from a known place.

36. Plate No.( II/a)( Surface Plan): The proposed location of waste dumps, stacks, sorting, mobile crusher/ screening etc., should be have been demarcated for reference. The CEC extended area should be demarcated on the plan for future reference.

37. Plate IIb: (Geological Plan): (i) The proposed exploration should be shown as per scrutiny comments at para 1(i). (ii) Colour code should be given for Iron ore and siliceous iron body should be with clarity.

38. Plate II/c (Geological cross sections): (i) The proposed boreholes locations (dotted lines) should also be marked as per scrutiny comments at para 1(i). (ii) The depth projection of different categories of reserves and resources should be modified as per scrutiny comments para 1(j). (iii) Colour code should be given for Iron ore and siliceous iron body with clarity. Further, UPL may be revised considering grade of siliceous materials/reef and no proposals of mining in siliceous reef during conceptual period.

39. Plate No. (Development & Production): The proposed workings for the year 2016-17 to 2018-19 should be considered along the contour for systematic workings and not the way it is proposed.

40. Plate No-IV (Reclamation Plan): (i) proposed environmental monitoring stations have not been shown in core zone. (ii) Water monitoring station at water discharge point of ML area should also be proposed. Besides, the afforestation proposed for four years with same colour may be modified to different colours.

41. Plate No-V (Environmental plan): (i) Water monitoring station at water discharge point of ML area should also be proposed. (ii) Incorporated ultimate land use table may be removed. The other ML areas present within the 500m buffer zone have not shown.

42. Plate VI/a & VI (Conceptual Plan and Section): The conceptual plan/sections (end of lease period) should be modified as per scrutiny comments at para 2(f). Further, land use pattern table for modified mining plan and conceptual period may be revised. The workings undertaken in the conceptual stage should be brought out in the plan and the sections, instead of just showing the conceptual workings.

43. Plate No-VII (F.A. Plan): Incorporated financial assurance table should be modified as per scrutiny comments at para 8.6.