

Scrutiny Comments on examination Modification of Mining Plan submitted under rule 17 (3) of MCR, 2016 in respect of Pale Iron ore Mine of M/s Chowgule and Company Pvt.Ltd.(ML No. 06/AMLG(ML-2)/CCPL/17) over an extent of 150.6391 Ha. in Pale, Velguem and Mancem- Villages, Bicholim & Sattari - Taluka, North Goa Dist, Goa State.

Review of approved proposal:- In the review chapter only exploration proposals given in the last approved document and achievement needs to be discussed. Exploration carried out in the past cannot be discussed.

Geology and Exploration:- i) Highest and lowest R.L's given under topography of the lease area are incorrect. ii) It is stated that no public road is passing through the lease area. However in the cadastral plan road is shown this need to be clarified. iii) The number of ore bands present in the lease area with dimensions needs to be discussed in the local geology. iv) Under local geology Lithological sequence of ore and waste rocks with thickness needs to be discussed. v) The strike of the formation is not properly discussed and strike of the formation may also give in whole circle bearing. vi) At page no 41 it is stated that entire mineralized area is explored under different level of explorations and entire mineralized area was shown as 81.79 Ha and area under non-mineralized zone is not mentioned. The non-mineralized area should be proved by exploration. If area is not proved by exploration same should be mentioned under area to be explored and drilling proposals should be given for the same. Vii) Under details of samples analyzed number of samples analyzed so far for different radicals and type of sampling, core, face, trench, chip sampling etc need to be discussed. viii) The entire mineralized area needs to be explored under G-1 level of exploration in the grid pattern suitable for the nature of the deposit as per MEMC rule 2015 and as per Rule 12 of MCDR, 2017. Proposal for deep hole drilling should be given to know the continuity of the ore body and boreholes proposals should be also made where drilled bore holes are exhausted and ore body is continuing depth wise. Accordingly exploration proposals should be modified. ix) Coordinates of the proposed boreholes should be given in UTM-UPS format of national grid. x) Lateral extension of boreholes cannot be considered for estimation of reserves. In some sections it is observed that lateral extension is taken for estimation of reserves and ore body is projected

without having proper exploration data. Reserves needs to be estimated under remaining resources where lateral extension is taken and ore body is projected without having exploration data. Xi) Depth below the drilled boreholes cannot be taken for estimation of reserves/resources. Accordingly reserves/resources need to be re-estimated. Xii) Detailed calculation for estimation of reserves/resources is not provided properly for all the sections which are consider for estimation of reserves/resources

1. Details of applied/lease area with location map (fresh area/mine):-In land type table should be clearly defined for private/government land (refer table no.2.0(b)(i)).
2. In your documents it is stated that, “in the year 2016-17,94% of the proposed quantity of approved documents has been achieved and due to this reason the working locations of 2017-18 will be proposed to change”. The above justification is unrealistic; this needs to be justified properly.
3. In the review part, the reason for deviation in excavation should be focused on the latest financial year planned vs achieved of the approved documents; hence same to be discussed properly.
4. It has been proposed in the study that the external loading on the Mine slope should be avoided. In case of overburden dump is placed over an active mining slope, it is suggested that a minimum distance of 20-25m be maintained between the slope crest and dump toe. In addition to this, the dump should be properly sloped by making benches of 5-7m height. The proposal excavation should be given by considering the recommendations of the CIMFR.
5. In the view of the recommendation, sustainability, safety and as per the current scenario of mining proposal e.g. excess load over the mine active benches due to old surface dumps, the depth of working below water table etc., the study for slope stability and hydrogeological from reputed agency may be carried out.
6. **Proposal in earlier latest approved Mining Plan achieved** (Ref. table no.2.0(b)(i)):-The proposed total quantity of ROM furnished as 654000T whereas the achieved quantity is 744756 T (Ore) and 19500T (Mineral reject). The above figures for ROM/OB/SB should be furnished as per the latest approved documents.

7. The afforestation proposal and achievement for the previous years of approved mining plan period should be discussed in the review part and should be clearly marked in the environment plan along with current proposal.
8. The proposal for modification of approved documents were submitted to this on 11/8/2017 whereas the documents were prepared based on the survey 1st April 2017. The Mining operation between the periods were not indicated in the documents. Thus, the documents should be updated as per the current working status of Mines.
9. The supporting documents for Qualified Persons for qualification and experience should be enclosed as per the rule 15 of MCR, 2016

10. Geological plan and cross sections:- i) On Geological plan total 16 boreholes were proposed and in text only 11 boreholes were given this needs to be checked and corrected both in text and plan. ii) All the section lines are not marked on geological plan.

11. Surface Plan:- The updated surface position of excavation and backfilling area were not properly updated in the surface Plan, surveyed on 27.4.2017 and submitted to this office.

12. Financial Assurance Plan:- The area indicating like 100m zone from the dump edge should be properly located in the plan.

13. Environment Plan: - Surface features falling within 60mtr from the lease boundary should be marked clearly.
