

Scrutiny comments on examination of Modifications in Approved Mining Plan with PMCP in respect of Vishnu Porbachel Ariagal (Sigao Mine) T.C. No.13 of 1955 over an area of 70.23 Ha. situated in Sigao Village, Dharbandora Taluka, South Goa District of Goa State submitted by V.M.Salgaocar & Bro. Pvt. Ltd., under Rule 17(3) of MCR'2016.

**Cover Page-** The category of mine, district and state where the mine is located should be indicated.

**Certificate-** It should be discussed about the provision of MCDR, 2017 instead of MCDR, 88.

**General-** Qualifications of Qualified Persons should be indicated.

**Details of approved MP/SOM:-**

The ROM production, sub-grade, mineral rejects, development and dump recovery in previous plan period should be given as per annual return submitted to IBM.

The quality & quantity of excavated ore laying for auctioning by state Govt. should be discussed in brief if any. The remaining grade wise stock of auctioned ore available in mining lease area as on date should be discussed.

It should be discussed in brief regarding any issues or encroachment or irregularity pointed out by Hon. Justice MB Shah Commission of inquiry to this mining lease/lessee, if any and comments made thereafter should be submitted in further submission along with supporting documents.

**Mining:-** A small introductory para of existing pit dimension along with no of benches in ore & waste, top & bottom RL should be given as on 01.4.2017. The proposed ROM production capping, EC limit, nearest distance of WLS/NP etc. should be discussed in text.

Page-34-36, The year wise proposed ROM production quantity should be given with grade of ROM/mineral rejects etc. The above threshold value & below cut-off grade should be given as mineral rejects. The cut-off grade & threshold value of minerals should be discussed as per IBM circular 2009. {Hematitic iron ore-Fe%-45% (Min) & Hematitic Siliceous ore-Fe%-35% (Min)}. The calculation of section wise & level wise annual proposed production quantity with grade of ore should be given in tabular form. The year wise proposed quantity of siliceous & hematite ore should be given separately.

Instead of referring in plate 8A&10, same should be discussed in text. The year wise dumping & backfilling proposal with quantity & location should be given separately in tabular form.

The proposed mine workings/ dump recovery should be 100m away from existing pit/dump edge as per DGMS guideline if any. The UPL should be modified as per statutes.

The abstract of slope stability study done, if any should be discussed & copy should be enclosed. The optimum/overall pit slope should be discussed & justified.

Page-47, The copy of hydrological study should be enclosed in further submission, if any & abstract should be discussed in text.

Page-50,52- the quantity of mineral rejects generation & their utilization should be discussed properly. It should be discussed in brief regarding utilization of mineral reject, (-56%Fe ore) because as per buyers specification mineral reject is not desired for use.

Page-61, The organization chart of statutory manpower/employment potential as per MCDR, 2017 & MMR-1961 should be given in details.

Page-61-62, PMCP- the existing land used details should be given as on 01.4.2017 & proposed plan period should be up to 31.3.2018 & lease period 21.11.2027.

Monitoring schedule of all environmental components should be given with respect to permissible limits & actual parameter in tabular form. The safety & protective measures for waste dump/collapsed area should be discussed.

The organization chart for disaster management plan should be given with name, designation & contact numbers of authorized person, their duties and responsibility.

Para-8.6, Financial assurance-Page-78, Land used pattern should be mentioned as on 01.4.2017 and plan period up to 31.3.2018. The backfilled area on mineral exhausted pit should be given separately. The total amount of financial assurance as per MCDR, 2017 should be calculated & discussed. The copy of original valid bank guarantee as per MCDR 2017 for the A-category mine should be submitted in further submission in the form of Annexure.

### **Plan & sections:**

All Plan and sections should bear the certificate from QP that 'The Plans and sections are prepared based on lease map authenticated by the state government'.

**DGPS plan-** The soft copy of full set of auto generated files of super imposed output or text file etc. should be enclosed in further submission.

**Surface Plan:** The date of survey is 01.4.2015 which is more than one year old should be updated. The water logged area should be shown with different colour code. The nalla, river, PWD roads, power line & their statutory limit should be shown properly. It should be signed by a certified surveyor with date. The surface features outside the lease area is not required, it needs correction. The forest & non-forest area should be highlighted.

**Production & development plan & section-**The plan & section should be updated & modified as discussed in field & text. The year-wise dumping & backfilling proposal should be shown separately by different colour. The UPL should be modified based upon above scrutiny.

**Financial Assurance Area Plan-** The plan & section should be updated & modified based on above scrutiny. The backfilled area on mineral exhausted pit should be given separately. The land used details should be given specifically as table & text.

**Annexure:**

1. The latest chemical analysis report of Ore/ Mineral rejects/Waste from an NABL accredited Laboratory of proposed mine workings should be submitted in the form of annexure. The enclosed analysis report is old i.e.25/3/2010 without having location of sample etc.
2. Latest quarterly monitoring report on air, water & noise should be enclosed as per category of the mine for last 2-3 quarters.
3. The copy of original valid BG of extended period as per MCDR, 2017 should be submitted in the form of annexure.

**1) Geology and Exploration:-**

- i) Strike of the formation should be discussed in whole circle bearing in the local geology chapter.
- ii) Under geology of the lease area number of ore bodies present with dimension and structure of the litho units needs to be discussed.
- iii) Details of lumps and fines ratio in the ROM based on sieve test conducted/ screening of ROM for separation of lumps and fines done in the past can be discussed under the local geology.
- iv) Exploration carried out under different level of exploration and remaining area to be explored should be given separately for forest and non-forest land.
- v) Exploration proposals should be made in the grid pattern suitable to nature of deposit as per the Mineral evidence rule 2015 covering entire mineralized zone.
- vi) Contribution towards DMF and NMET need to be discussed in the feasibility report. Feasibility report should be prepared lease wise so reserves of particular lease should be considered for feasibility report.
- vii) Reserves/resources should calculate separately for forest and non-forest area.
- viii) At page number 26 resources estimated based on level of exploration should be given separately for forest and non-forest land.
- ix) The reserves which are blocking due to public/village road should be re-estimated under remaining resources.
- x) Log sheets of all the boreholes considered for estimation of reserves/resources needs to be furnished.
- xi) Date of reserve estimation should be as on 01.04.2017.

**Plates:-**

**Geological plan and cross sections:-** i) Lithology shown on geological plan and cross sections are not matching. ii) Geological index is not shown on the surface geological plan. iii) Color codes given for the different litho units should be same both on Geological plan and Geological cross sections. iv) On Geological plan section lines are not marked at

50m interval. v) Forest boundary is not shown on geological plan. vi) The area explored under different level of exploration is not marked on geological plan and UNFC codes are not properly marked on geological cross section. vii) UPL is not shown properly on geological plan and cross sections.

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