

Scrutiny comments on examination of Modified Mining Plan with PMCP in respect of Hunantlo Dongor Mine (T.C.No.17 of 1949) over an area of 33.1173 Ha. situated in Colomba & Curpem Villages, Sanguem Taluka , South Goa District of Goa State submitted by ECO Mining and Construction (P) Ltd., under Rule 17(3) of MCR'2016.

Cover Page- The submission of Mod. of mining Plan should be under rule 17(3) of MCR,2016.It needs correction. The five year block period should be 2012-13 to 2016-17 actual period of approval should be 2016-17. The Forest & Non-forest land survey number, mineral granted etc. should be given. The expiry of lease period should be 31/03/2020 as per order issued by DMG, Goa.

Preface- It should be discussed regarding past history from commencement of mining operation, first & second renewal application filed & second renewal has not been done and further deemed extension of mining lease as per MMDR amendment Act 2015 should be given with supporting documents. The transfer of mining lease under provision of MCR, 1960 from Atmaram X. Poi Palondikar, individual to M/s Eco Mining & Const. Pvt.Limited, (Company) should be discussed & justified. The part of lease area was proposed for surrendered but copy of FMCP is not discussed & enclosed. The copy of EC & Forest clearance, production capping of said mining lease etc. should be given with all supporting document.

The ML area after DGPS should be discussed regarding any survey number wise area either addition/deletion etc. The Geo-referenced co-ordinates of lease boundary pillars should be given on DGPS plan. The path row of the satellites and date of pass of DGPS survey should be given on DGPS plan.The full soft copy of all files of super imposed output /Geo-referenced map /MS-word file etc. should be enclosed in further submission.

General- The IBM registration number IBM/4425/2011 & mine code should be mentioned. Name, address & contact details of partners should be given in tabular form.

The IBM registration number IBM/4425/2011 was issued to Shri Atmaram X Poi Palondikar as individual & further transfer order of said mining lease was passed in favour of M/s Eco Mining & Construction Pvt. Ltd. by State Govt. Therefore request letter from lessee for change /edit/updated in existing registration number or apply fresh registration under company.

Location & Accessibility:-The existing surface features with in 60m & 500m should be given in text. Distance of the nearest wild life sanctuary/National Park/ESZs from the lease area should also be mentioned in topography. The surface rights of land used for the plan period is presently held with lessee or not, is not discussed. Page-4- The name of authorized person/ agency recognized by the state Govt., who had conducted the DGPS survey is not given in text.

Details of approved MP/SOM:-Page-6, The date and reference of earlier approved mining plan & subsequently scheme of mining, modifications, partly FMCP etc. should be discussed in brief. The review of Mod.in mining plan should be discussed up to Feb.2017 or till date & justified in remark column. The production, development and recovery of dump production

should be based on annual return submitted to IBM only. The deviation from proposal should be justified & discuss in remark column.

The quality & quantity of lifting of excavated ore by way of auctioning by state Govt. should be given in tabular form. The remaining auctioned ore stock available as on date should be given in separate column. The status of compliance of violation & reply should be given in the form of annexure.

It should be discussed in brief regarding any issues or encroachment or irregularity if any, pointed out by Hon. Justice MB Shah Commission of inquiry pertaining this mining lease/lessee and comments thereon etc with supporting documents should be enclosed in the form of annexure.

Page-6, Para-3.4 & 3.5, The mine was suspended for non-compliance of rule 45 of MCDR, 88 & subsequently recommended to state Govt. for determination of mining lease & their status of revocation should be discussed. A feasibility report should be submitted in support of the reserves estimated under UNFC.

Mining:- Existing dimension of pit & dump should be updated as on till date. The iron & Mn proposal should be given based on capping of said mining lease as per the directives of Hon'ble Supreme Court order for the state of Goa. It should be discussed in brief regarding EC & forest clearances, nearest wild life sanctuary/National Park/ESZs from the lease area.

The dumping proposal should be restricted within inside mining lease only and if over mineralized zone, it should be of temporary nature only. The proposal for siliceous ore if any should also be given.

As discussed during inspection-(i) The targeted quantity of capping allotted by state DMG, Govt of Goa of 1 Lakh iron ore & 10,208 T of Mn ore for the year 2016-17 (Up to 31.3.2017) to be achieved within short span of time i.e. March, 17 & accordingly optimization of man & machinery & proposed no. of working faces, shifts, advancement of faces & effective working hours/shift etc. should be discussed & justified.

The present mine workings/excavation of ROM is being carried out & further location of proposal of ROM quantity should be in G1/G2 level of exploration only as per provision of MEMC rule 2015. It needs correction as advised during inspection.

The proposed mine workings/ dumping/stacking should be 100m away from existing pit edge as per DGMS guideline. The UPL should be modified by leaving statutory barrier of seasonal nallah, road, HT power line etc.

PMCP: - Land use pattern should be mentioned as on date and subsequent next plan period up/lease period should be up to 31.3.2020. The existing as well as proposed environmental protective measures should also be given in tabular form with supporting latest analysis results.

Financial assurance: The copy of original valid bank guarantee of extended period for the A-category mine should be submitted in further submission in the form of Annexure.

Plan & sections: All plan & sections, Surface plan, Production & development plan, Conceptual plan should be updated & modified & highlighted the proposed working to be carried out in March, 2017. The features outside lease are not required. The relevant table & text should be updated & modified based upon the modified/cap production & development proposals.

Annexure:

1. The nearest distance of lease area falling from WLS/national Park/ESZ etc. Should be submitted in the form of annexure.
2. The latest copy of Form-I&XIV (Land record) as supporting document should be submitted in further submission.
3. The environmental monitoring report should be given on survey agency letter head duly signed by authorized person.
4. The copy of transfer of mining lease, working with in 7.5m of statutory barrier etc. should be discussed & submitted in further submission.
5. The further submission of document should be properly binding having sufficient strength and the plates are properly folded so that they can be accessed easily.

- 1) **Geology & Exploration:-**
- i) The highest and lowest RL's given under physiography of the lease area are not matching with the RL's mentioned on the surface plan.
 - ii) Under regional geology it is not mentioned under which formation the lease area falls. Regional geology should be described with reference to location of the lease area.
 - iii) **The number of ore bodies present in the lease area with dimensions** and structural features if any needs to be discussed under geology of the area.
 - iv) **Strike of the formation should be given in whole circle bearing.**
 - v) **General thickness of each lithounit is not mentioned.**
 - vi) Entire mineralized area should be explored under G-1 level of exploration in the grid pattern as per Minerals (Evidence and Mineral Contents) Rules-2015. Accordingly the exploration proposals should be modified.
 - vii) DTH boreholes cannot be considered for estimation of reserves.
 - viii) Logsheets of all the boreholes which are considered for estimation of reserves/resources needs to be enclosed.
 - ix) Under the heading area already explored details of area explored under different level of exploration as per Minerals (Evidence and Mineral Contents) Rules-2015 and mineralized area to be explored need to be discussed.

x) The exploration proposals should be given in the following format

Sl.No	Year	No.of boreholes with Type Core/RC/DTH	Grid interval	Total meterage

xi) At present the exploration carried out in the Iron ore zone is not in the grid pattern as per the Minerals (Evidence and Mineral Contents) Rules-2015. So reserves estimated based on

these boreholes cannot be considered. Exploration should be carried out in the grid pattern as per the discussion during field visit and reserves/resources should be re-estimated.

xii) Lateral extension from the last borehole cannot be considered for estimation of the reserves. In present submission it is observed that reserves are estimated by taking influence from the drilled bore and it is not considered. So reserves are needs to be re-estimated without taking borehole influence.

xiii) Based on single borehole reserves cannot be estimated under proved category.

xiv) Depth below the drilled borehole cannot be considered for estimation of reserves.

xv) The resources estimated under G-3 level are not as per the Minerals (Evidence and Mineral Contents) Rules-2015. So resources need to be re-estimated.

xvi) Reserves/resources should calculate separately for lumpy ore and powdery ore.

xvii) The bulk density and recovery factor should be taken based on the test conducted.

xviii) Feasibility report is not prepared as per the requirement, it is not clear whether cost of operation includes, Export duty, District Mineral Fund, contribution towards NMET and Goa Mineral Development fund etc. or not. Further how project will be economically viable based on available reserves, cost of production and sale price is not discussed properly.

2) Plates:-

Geological plan and cross sections:-i) On Geological plan the area explored under different level of exploration ie, G-1,G-2 and G-3 and reserves estimated under different level of UNFC classifications marked on geological cross sections should be changed as per the discussion in the field and as per the modification to be in the reserves/resources in the geology and exploration chapter based on scrutiny comments.

ii) Collar Level, depth and inclination of the drilled boreholes should be marked on Geological Plan and sections.

iii) Lithology shown on Geological plan and cross sections are not matching. Refer sections C-C', F-F', H-H' etc.,

iv) On section G-G' greenish hatched structure is drawn by taking data of borehole EMC-15 and same is not shown in the index.