### Annexure to Letter No. MP/MECH-101(MAH)/GOA/2016-17 dtd.06.03.2017

# <u>Deficiencies observed in the draft of Review of Mining plan of Sateli Iron Ore Mine over 36.9116 ha. of M/s Raw & Finished ore in Sindhudurg District of MAHARASTRA state</u>

#### **Text:**

## **GENERAL**

- **1.** Enclosed Undertaking/certificate/consent etc. from lessee /TQP in respect of preparation of this review of MP/Scheme is not given as per the guideline of "IBM manual on appraisal of Mining Plan-2014".
- **2.** Lessee is a partnership firm i.e. Raw & Finished Products. Partner's name of the firm as mentioned over REGISTER OF FIRMS (copy enclosed as Annex-1C) is different from the Partner's name as mentioned in Copy of Partnership deed dtd. 01.04.2004 and also mentioned in the TEXT at Para 1(b), page-3.
- **3.** As mentioned, the lessee firm is having 04 partners. However, copy of resolution dtd. 09.08.2010 regarding nominated owner of the mine is signed by only 02 partners. Undertaking/certificate/consent etc. should be signed by the Nominated owner/partner, authorized by all partners..
- **4.** Chapter-2: Latitude/Longitude range given for ML area at page-6 is not correct; as it is not matching with ML boundary pillars/points co-ordinates given at page-7.

# **GEOLOGY:**

- **5.** Earlier to 2012-2013, 12 boreholes have been drilled and after 2013, another 13 boreholes has been drilled. Total 25 boreholes have been drilled in the lease area, whereas in exploration table only 12 boreholes considered and in geological plan only 20 boreholes has shown.
- **6.** Total 12+10+3=25 boreholes are reported in text; however 5 boreholes reported during mining plan period neither included in borehole logs nor shown on surface geological plan.
- 7. The bulk density and recovery factor not given on the basis of tests conducted for different grade of minerals. The recovery was taken as 95% in earlier approved plan; it is changed to 100% without commencement of actual mining or test. Bulk density of similar deposit in Sindhudurg district is being established as 2.2-2.4 for low grade mineral and 2.6 to 2.8 for high grade mineral; however it is taken 2.8 for reserves estimation. It is on higher side without any test.
- **8.** Detailed estimation sheet for reserve and resources estimated, mentioning sectional area, influence taken, BD, recovery factor, UNFC category, location on plan & sections etc. is not given.
- **9.** Geological sections should have been drawn at regular interval of 50m to cover complete lease area to know the geology of the area based on geological study carried out by DMG, Maharashtra to prove resources into reserves under UNFC system.

- **10.**Geological reserves & Resources should have to been shown in table to compare with previous approved plan and as of now. How much reserve has increase or depletion is also not explained.
- 11. Additional exploration is to be proposed to know the continuity of ore in depths and to complete the exploration as per UNFC compliance. Many sections are not having sufficient Boreholes and many boreholes are in complete to find out the contact zone. However adequate exploration proposal is not given.

#### **MINING**

- **12.**In TEXT, at page-29, it is mentioned that "During the current five years (2017-18 to 2021-22), it is proposed to work with adjacent 20.24 Ha. lease at common boundary to mine the ore available at the common boundary". Whereas, in Working Pit/Excavation Plans & Sections, no proposal of workings/excavation at common boundary are given.
- **13.** In Conceptual Mine Planning, at Page-29, Mineral reserves are not given correctly, i.e. not matching with the estimated reserves in Geological Chapter.

## PROGRESSIVE MINE CLOSURE PLAN

- **14.**As mentioned in Introduction at page-3, "due to local and approach road problems as well as land acquisition, there was no mining activity in the lease area". However, in F.A. table at page-55, In Area put on use column, 09155 Ha., 8.36 Ha. & 0.6653 Ha. under head mining, waste (OB) dump & mineral storage are mentioned respectively.
- **15.**In addition to above; many incomplete/unclear statements are given/mentioned in the submitted Review of MP document.

#### **PLATES:**

- **16.** All Plan & sections should have bear the certificate from RQP that 'The Plans and sections are prepared based on lease map authenticated by the state government'.
- 17. Surface Geological Plan: Regular geological sections are not drawn at 50m interval covering total lease area for estimation of reserves & resources. The ultimate pit limit and 7.5m safety zone are not shown on the geological plan. The area has to be shown for G-1, G-2 and G-3 level of exploration along with 7.5m safety barrier, ultimate pit limit on geological plan & sections.
- **18.**Fonts used for BH number, contours etc are not eligible for easy reading. All boreholes should have been marked with type, diameter, inclination, collar level and depth.