

Scrutiny comments in respect of (mining part) Redi Iron Ore mining lease, over an area of 94.7060Ha non-forest land, A-category fully mechanized mine, situated in Redi-village, Vengurla-Taluka, Sindhudurg-District of Maharashtra-State for approval in Modification in Mining Plan under rule 17(3) of MCR, 2016 for block period of 2015-16 to 2019-20 & approval period of 2017-18 to 2019-20 of M/s Gogte Minerals.

**General-** Page-1, It should be discussed in brief regarding date of first grant of mining lease & subsequent renewal periods & extension of lease period as per MMDR amendment act, 2015 with supporting documents.

i) During fields visit it was observed that some OB benches were extended in the other lease of the same lessee where there is no such proposal in the approved document of lease of 94.7060Ha (block no-I) and no valid approved document is available for the other lease(lease No-iv) where benches of block no-I are extended. How working has been carried out in the other lease without having any approved document or proposal is needs to be justified.

ii)On the DGPS plan approved by State DMG, lease area of other lease (lease no-iv) which is within the lease Blokck No-I is not shown and DGPS readings are also not taken for the lease no-iv, which is common boundary to Block no-I. Further it is also not clear that whether lease area of block no-I which is shown as 94.7060 ha is including or excluding the lease area of lease –iv.

iii) The DGPS Readings of common boundary pillars with Mauli mine are not matching.

Page-6, As per form I&IX, type of land with survey number of lease area should be given. The existing surface features with in 60m & 500m should be discussed in brief.

Page-7, The co-ordinates of lease boundary pillars should be given in text in tabular form. It should be discussed in brief regarding any survey number wise area either addition/deletion after DGPS etc. The name & contact details of authorized person, who has conducted the DGPS survey should be given.

The surface right of lease area presently held with lessee or not, is not discussed. The EC limits & nearest distance of NP/WLS/ESZ should be discussed.

**Details of approved MP/SOM:-** The production & development achieved & deviation/change of place of working in previous plan period & waste dumping partly outside the lease area in east side of ML should be discussed, clarified & justified with supporting documents.

It was observed during inspection that development made in adjacent lease of Reddy block-2, lease area-2Ha., where no approved MP/SOM/proposal are exists. It needs clarification with justified reason.

The common boundary workings permission with adjacent lease of NIMCO has been taken in past in 1988 from DGMS Goa. The relevancy of this permission & change in proposal should be as per DGMS guidelines. The copy of revised permission/ inward copy of present common boundary working permission under 111 of MMR, 1961 should be enclosed.

The copy of violation/SCN issued in previous plan period by this office & compliance status should be discussed & submitted. The production achieved during 2016-17 should be submitted based upon monthly return submitted to IBM only; The word “expected up to 31.3.17” is not required.

v) The sub-grade, mineral rejects, dumps recovery if any in previous plan period should be given up to 31.3.2017.

vii) A feasibility report should be submitted in support of the reserves estimated under UNFC. The report should be suitably linked to the reserves estimated with latest economic parameter mentioning viability of project should be concluded. The intrinsic cash flow of project should be given in tabular form.

### **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) Under the heading exploration already carried out, details of area explored under different level of exploration and remaining mineralized area to be explored should be discussed.

v) Entire mineralized area should be explored under G-1 level of exploration in the Grid pattern suitable for nature of the deposit as per the Minerals (Evidence of Mineral contents) Rules 2015. Accordingly exploration proposals should be modified.

vi) Reserves/resources need to be estimated grade wise separately for lumps and fines.

vii) Reserves/resources should be estimated as on 01.04.2017.

viii) Lateral extension from the extreme borehole cannot be considered for estimation of reserves.

ix) On some sections it is observed that reserves/resources are estimated even though no ore is shown on the cross sections refer sections-600,-650, -700 and -1200.0

x) The sectional area taken for estimation of reserves is incorrect. So reserves/resources need to be re-estimated by taking correct sectional area.

xi) Reserves/resources are not estimated properly as per the UNFC classification.

xii) Detailed calculation of estimation of reserves/resources as per UNFC classification should be given grade wise showing sectional area, area of influence, bulk density and recovery factor etc.

**Mining:-**Page-34, 35, The existing pit dimension with number of benches in ore & waste should be given as on 01.4.2017.

Page-34, The year wise proposed ROM production quantity & grade of ROM/mineral rejects should be given. 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)}.

Page-37, Para-C, Dump re-handling (For purpose of recovery of minerals)- The existing quantity of dumps with in lease area & with tentative grade of material should be given.

The annual handling of waste dump & recovery of ore, if any should be discussed with justified reason. The stripping ratio of insitu excavation & with dump re-handling should also be discussed. Page-38, Instead of referring in plate 7A to 7C & 8A to 8B, same should be discussed in text.

It was observed during inspection that height of waste dump terraces is more than 10m. It should be discussed & justified.

The optimum/overall pit slope should be discussed & justified based on scientific study done etc. Page-39, adequacy and optimization of HEMM to achieve total annual handling quantity should be discussed. The breakup of hired & own HEMM used in mine should be discussed & given separately. The proposed mine workings/ dump recovery should be 100m away from existing pit/dump edge as per DGMS guideline if any.

The mine workings done with in 7.5m of statutory barrier in past in adjacent lease area should be discussed & common boundary working permission under rule 111 of MMR, 61 & present proposal should be discussed. The abstract of slope stability study done, if any should be discussed & copy should be enclosed.

Page-45, The copy of hydrological study should be enclosed in further submission, if any & abstract should be discussed in text.

Page-47-49, 50, the quantity of mineral rejects generation & their utilization should be discussed properly. It should be discussed in brief regarding utilization of mineral reject, (-57%Fe ore) because as per buyers specification mineral reject in not desired for use.

Page-54, The organization chart of statutory manpower/employment potential as per MCDR, 88& MMR-1961 should be given in details.

Page-55, PMCP- the existing land used details should be given as on 01.4.2017 & proposed plan period/lease period should be up to 31.3.2020. It needs correction.

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-79-80, Land used pattern should be mentioned as on 01.4.2017 and plan period up to 31.3.2020. 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 of extended period for the A-category mine should be submitted in further submission in the form of Annexure.

All plan and section, text & tables should be modified based upon above scrutiny points and should be duly signed by RQP or authorised persons in further submission.

## **Plan & sections:**

**DGPS plan-** It should be mentioned about the path row of the satellite and date of pass of DGPS survey. 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 nalla, river, PWD roads, power line & their statutory limit should be shown properly. The surface features outside the lease area is not required, it needs correction. The common boundary working co-ordinates should be same as adjacent lease.

**Geological plan and cross sections:-** i) Northings and Easting's are not mentioned with values on the surface geological plan. ii) Dip and strike of the formation is not marked properly on surface geological plan. iii) On Geological plan RL's, are not properly visible so font size may be increased. iv) All the sectional lines are not marked on the surface geological plan. v) Collar level, depth and inclination of the borehole should be marked on surface geological plan and cross sections. vi) Lithology shown on geological plan and cross sections are not matching on some of the cross sections. Refer sections -100E, 0E, 150E, etc. vii) The boreholes which are completely above the profile can be removed and boreholes which are partly above the profile should be shown in dotted line. viii) The area explored under different level of exploration and UNFC codes are not properly marked on Geological plan and geological cross sections.

**Production & development plan & section-**The plan & section should be updated & modified as discussed in field & text. 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.03/7/2015 without having location of sample etc.
2. The copy of resolution of Board of directors for nominating the owner & address proof of other partner should be enclosed in the form of annexure.
3. Latest quarterly monitoring report on air, water & noise should be enclosed as per category of the mine for last 2-3 quarters.
4. The copy of original valid BG of extended period as per MCDR, 2017 should be submitted in the form of annexure.
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.

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