

Scrutiny comments of mining part in respect of Dhangarwadi & Ainwadi applied area Mining Plan, over an area of 221.236Ha, non-forest land, A-category, situated in Dhangarwadi & Ainwadi -villages, Shahuwadi-Taluka, Kolhapur-Distt. of Maharashtra-State for approval of applied area mining plan under rule 16(1) of MCR, 2016 of M/s Anand Mines (Products) Pvt Ltd.

**Cover page-** The title of document should be mentioned as “Applied area mining plan”. The rule under which document is submitted should be 16(1) of MCR, 2016 instead of 17(3) of MCR, 2016. The word “mine/lease” should be replaced as “applied area” since mining lease is not granted yet. The mineral “bauxite” & area “non-forest” should be mentioned.

**Certificate-** The word “mine/lease” should be replaced as “applied area” since mining lease is not yet granted. The date & reference no of certificate should be given. The word “lessee” should be replaced as “applicant”.

**Introduction/preface-i)** The brief history from start of grant of Letter of Intent to till date should be discussed with all supporting documents. Annexure-1&2, copy of letter in Marathi language should be translated in English/Hindi & replaced and notarised in further submission. It should be discussed in brief regarding delay in grant of mining lease on or before 11/1/2017 as per provision of MMDR amendment act 2015 with valid reason. The lease sketch map of applied area should be submitted in further submission. Any court case filed relevant to this case may be discussed with supporting documents.

**General-** The word “lessee” should be replaced as “applicant”. The IBM registration number under provision of rule 45 of MCDR,88 to be issued to applicant should be given. The provision of RQP under MCR, 2016 is no more applicable; therefore, it needs correction & should be under provision of rule 15(1) of MCR, 2016. The name & contact details of partners of company should be given in text with supporting documents. The applied area should be corrected as 221.236Ha.(Page-2) .

**Location & Accessibility:** - Page-2, The word “lessee” should be replaced as “applicant”. The word “mine/lease” should be replaced as “applied area” since mining lease is not granted yet. The latest LOI with reference number & date should be discussed. The expiry period of lease should be discussed as lease grant under process.

The type of land & survey number of applied lease area, ownership right should be given as per form-7/12 or I&IV/Govt. revenue records in tabular form & copy should be annexed.

The copy of authorized person/ agency recognized by the state Govt., who had conducted the DGPS survey is not given. It should be mentioned about the path row of the satellite and date of pass of DGPS survey and geo-referenced mining lease map should be superimposed on latest high resolution satellite derived from merging of Cartosat-2 and LISS-IV from NRSE, Hyderabad only.

The feasibility report should be discussed with latest economic parameters, IRR, viability of project etc. in conclusion.

**Mining:** - i) It was observed during inspection that few exploratory trial pits have been made without permission of state Govt. for compliance of UNFC. Any permission taken from state Govt. for this purpose should be discussed with supporting document.

Page-20, the area of bauxite is in float ore & method of mining should be discussed as mechanized open cast method with use of HEMM & only required drilling & blasting should be proposed & maximise the use of rock breaker only. The adequacy of man & mine machinery & their capacity, haul road should be discussed & optimised. The statutory barrier of 50m from existing nallah & 10m from village road, human settlement (Dhangarwadi-Muslim & Hindu wada) etc. should be left as per MCR, 2016. The annual production & development proposal quantity should be optimised & modified based upon the available mineable reserves only.

Mining operations should be proposed from one end of the lease boundary to the other & Top RL to bottom RL. iii) In present applied area, mining should be proposed in G1/G2 level of exploration as per MEMC Rules, 2015 as discussed during inspection. iii) Mode of working has to be briefly described as bauxite mining is backfilling/restoration of mine out area & reclaimed simultaneously.

It was observed during inspection that boundary pillars of applied area were not erected & not made available as per ministry of mines guidelines. The Google image of applied area should also be submitted in further submission for confirmation of prominent features. The field photograph of BP with specification should be submitted in further submission.

Waste dump management:-Topsoil should not be treated as overburden as top soil/clay is available in the lease area up to avg. thickness & accordingly proposal for proper storage & utilization, stacking of topsoil and disposal of reject must be made separately. Quality of topsoil and reject may also be described.

It should be time bound commitment for appointment of statutory person /mining engineer & Geologist as required under provision of MMR, 61/MCDR, 88.

Page-28, The year-wise generation of mineral rejects/subgrade quantity with tentative grade of material should be given in tabular form based upon the cut-off grade & threshold value of bauxite. It should be discussed in brief regarding utilization of mineral rejects quantity with grade & blending with higher side as per year wise proposed planning.

The cut-off grade & threshold value of minerals should be discussed as per IBM circular 2009. {Bauxite-  $Al_2O_3$  - 30 % (Min) and silica (reactive) 5% (Max) & for aluminous laterite:  $Al_2O_3$ , 20 % (Min)}. The enclosed analysis reports in annexures, presence of silica content more than 5% should be considered as waste/rejects only.

The proposed location of waste/dump disposal with latitude & longitude, top & bottom RL & area etc. should be given in tabular form as per plan & section. The tentative grade of OB & intercalated waste should be given in year wise tables based upon the analysis done from NABL.

Page-30, Use of minerals & Mineral rejects- The flow chart/ material balance chart of crushing & screening should be given. It should be discussed in brief regarding utilization of mineral rejects as per end use industry/ buyers specification.

**PMCP**:-Page-32, Existing land use pattern/Baseline information-The baseline information of environmental components, Location of different monitoring stations as per IBM/MOEF guidelines for EMP and frequency of monitoring may be discussed and given in tabular form.

Environment Impact Assessment:-No description of impact of mining & mechanisation on environment for both plan period and conceptual plan period has been given.

EMP:- All protective measures should be mentioned specially towards village area, and waste dump washed off & stabilization etc. during plan period. It should be proposed the environmental protective measure, afforestation, etc as per format of appraisal of mining plan 2014.

**Financial assurance:** The updated land use pattern should be mentioned as on date and subsequent five years of plan period.

During the pendency of approval, if there is any change in the name / address / ownership of mining lease, it should be informed promptly. All plan and section, text & tables should be modified based on above scrutiny.

**Plan & sections:-** All the title of plates should be replace as “applied area” instead of “mining lease” & “applicant” instead of “lessee”. It needs correction.

1. **Key Plan:** Land use status i.e. Govt. land, private land & forest land, wind rose diagram etc must be shown by different colour code.
2. **DGPS plan:** The copy of DGPS plan/Cartosat image as per CCOM circular 02/2010, duly authenticated by state Govt. should be submitted in the further submission.
3. **Surface Plan:** It should be signed by a Qualified Person with date.
4. **Surface Geological Plan & sections:** All sections should show contact with host rock at bottom or maximum possible mineral thickness based on GSI/DMG data.
5. **Production & Development plan-** The plan should be modified as per above scrutiny & rectified. The protective measures, approach roads to working pits etc. should be proposed & shown properly. The advancement of faces should be judicially planned & minimum bench height & width should be proposed & maintained. The year wise proposed production & development sections should be shown by showing benches & levels & leaving statutory barrier of water course, power line & nallah etc.
6. **Conceptual Plan/Reclamation Plan & section-**The pit position of mine at conceptual stage of mining should be shown in conceptual plan with showing plan & block period of mining with levels as given in existing & proposed land used details. The Reclamation Plan should be showing rainwater management and mine water discharge system, pumping etc, proposed afforestation & year wise environmental protective measures should be shown by different colour code.
7. **Financial assurance area Plan-** Land use pattern should be mentioned as on date and subsequent five year plan period as per MCDR, 2017.

**Annexure:**

1. The permission letter from state DMG for exploratory trial pits for UNFC compliance should be submitted in further submission.
2. DGPS surface plan duly signed & authenticated by state Government should be submitted in further submission.
3. The copy of resolution of board of directors of firm & nominated owner/signing authority should be submitted in further submission.
4. The copy of nearest distance of applied mining area from NP/WLS/ESZ, should be enclosed in the form of annexure.
5. The latest copy of Form-I&IV or 7/12 should be enclosed in further submission in the form of annexure.
6. Field Photographs showing boundary pillar in prescribed shape & size, fresh applied area, prominent surface features etc. should also be enclosed.
7. Latest baseline information on environmental monitoring report on air, water & noise, soil should be enclosed as per category of the mine from last 2-3 quarters.

8. 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.

**Geology & Exploration:-**

1. Highest and Lowest RL as mentioned in text part is not matching with plans.
2. It has been observed that the trial pits are dug with grid pattern. Permission for digging the trial pits in the applied area and from the state Govt. should be discussed.
3. Prospecting report of GSI, DGM of Maharashtra in the applied area may be enclosed for additional support.
4. During inspection it was observed that the Bauxite formation is found in the contact zone with basalt. However, these structural features have not been depicted on the geological plan nor it is discussed in the text.
5. Detailed estimation table for reserves & resources as per UNFC has to be given in text. Minerals (Evidence of Mineral Contents) Rules 2015 has to be followed for UNFC reserves & resources estimation. Beyond & below the depth of Trial pits, it should be considered as resources as per above said rule.
6. Reserves calculation has been taken from the pit influences, but it should consider from sectional influences. Lithology of each trial pits has to enclose with their analysis.
7. Page-19:- Reserves table shows two different figures in tons & in million tons. Resources blocked under roads, Nalla to be shown. Summary of reserves for level of exploration on page-18 and for UNFC codes on page-19 is not co-relating for category G-1 and G-2.
8. UNFC code is not marked in Geological Plan & sections. UNFC code has to describe in text part. Lithology should be shown in Geological sections.

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