

Scrutiny comments in respect of Mevasa Bxt mine, M.L/Sy.No.437 & 396 over an area of 186.96Ha, non-forest, A- category, situated in Mevasa –village, Kalyanpur-Taluka, Devbhoomi Dwarka-Distt. Of Gujarat-State for approval of Review of Mining Plan under Rule 17(2) of MCR,2016 for the block period of 2015-16 to 2019-20 & approval period of 2017-18 to 2019-20 (expiryof Lease period 31.3.2020) of M/s GMDC.

**01. Cover page-**(a)The title of document should be corrected as “Review of mining plan” under rule 17(2) of MCR,2016 (b) Survey number, mine code, permanent address of lessee & Correspondence address should be given.

**02. Certificate/Annexure-**(a) The list of annexure & plates are not given & updated as per guidelines. (b) The undertaking/ certificates should be modified/updated as per draft Review of Mining Plan under rule 17(2) of MCR, 2016 & PMCP under 23 of MCDR, 2017.

**03. Introduction-** (a) The brief history of mine should be discussed in text from first grant of mining lease & subsequent approval of MP/MS with all supporting documents in legible form. (b) The non-submission of previous scheme of mining for approval/Non-approval/rejection etc should be discussed with supporting documents. (c) It should be justified, why ROM production was achieved/mine workings was continued without approved MP/MS from 2015-16 onward to till date with supporting documents? (d) Why mining operations should not be suspended under provision of MCDR, 2017, justified. The copy of distance of mining lease from CRZ, extension letter as per MMDR Amend Act 2015 etc should be submitted in further submission. (e) The copy of Environment Clearance /Consent to Air & Water etc should be discussed & submitted.

**04. Location & Accessibility:** -(a) The ownership right should be given as per form-I&IV/Govt. revenue records & should be translated & enclosed in further submission. (b) The date of first grant of mining lease, period of approval of MP/MS, IBM registration No./mine code etc. should be given. (c) The co-ordinates of lease boundary pillars is not mentioned as per lease map authenticated by State DGM. (d) It was observed during inspection that no boundary pillars

**05. Review of mining plan:** -(a) The review chapter should be updated/discussed from approval of MP/MS & subsequent scheme of mining with supporting documents. (b) The last Scheme of Mining was approved vide letter no. NIL dated 24.3.2010 for the period of 2010-11 to 2014-15 but ROM production achieved from 2015-16, 2016-17 & 2017-18 (up to August, 2017) without approved MP/MS need to be justified with valid supporting documents. (C) The proposal in last approved SOM & deviation should be discussed & justified. (d) It was observed during inspection that irrespective of ROM Stacks, about 75000 tonne (<10MM) of subgrade/mineral rejects stacked with in lease area but same has not been given in monthly return closing stock, why? (e) The ROM production, Development, exploration, plantation done etc. should be reviewed/discussed with location, top & bottom RL, area/tonnage & grade as per guidelines. (f) The ROM production was achieved in previous years should be given as per monthly/annual returns submitted to IBM/CGM only. (d) As per borehole logs, average thickness of bauxite is about 2m in lease area but production achieved in excavated area is seems to be more. Justified. (e) Para-3.4 &3.5- It should be discussed in brief regarding Suspension, violation, Show-cause Notices issued by this office in past & compliances reported along with supporting documents.

**06.**The feasibility report should be discussed & linked to the reserves estimated with latest economic parameters & viability of project should be discussed in conclusion.

**07. Geology:-** (a) The reserves and resources should be given & updated as on 01.4.2017 after depletion of production achieved up to 31/8/2017. (b) As per borehole logs, average thickness of bauxite is about 2m only but production achieved from exploited/reclaimed area is seem to be more, same should be justified with supporting documents. (c) The estimation of reserves & resources in remaining area without adequate exploration is incorrect (UNFC 111-1.28 million tonne & 0.135 million tonne) as per provision of MEMC rule 2015. (d) The estimation of reserves & resources of bauxite in plan period of about 2m or true depth on sectional area method should be judicially given & submitted. (e) The Adequate number of proposal of exploratory pits in mineralized area is to be made; more over a proposal should also be given for ascertaining the mineral continuing below lithomargic horizon. (f) The cut-off grade & threshold value of bauxite mineral should be discussed as per IBM circular 2009. {Bauxite-Al<sub>2</sub>O<sub>3</sub> - 30 % (Min) and silica (reactive) 5% (Max)}. (g) The presence of silica content in bauxite more than 5% should be considered as waste. It needs correction. (h) The copy of borehole/pit logs & chemical analysis report of bauxite/intercalated waste/mineral rejects etc. should be submitted from an NABL accredited Laboratory only duly signed by authorized person with date & place. (i) The mineral analysis report pertains to the year 2010.

Recent analysis report from NABL/Govt laboratory is to be submitted. (j) The remaining lease area should be proposed exploratory hole/pits as per MEMC rule, 2015 /IBM Manual & given in tabular form.

**08. Mining-** Page-22,(a) The existing pit dimension along with no of benches in ore & waste, top & bottom RL etc., in tabular form should be given as on 01.8.2017. (b) The proposed annual ROM production should be judicially planned on true potential mineral area of bauxite based upon the borehole/pit logs only. (c) The estimation of reserves & resources of bauxite is calculated up to 3m depth uniformly where as borehole logs is not available. It needs clarification. (Table-A2.5, Page-25) (d) Proposed scale of production of 1.25 Lakh tone/Annum is not acceptable without ascertaining the true potential of area. (e) The location of year-wise production & development should be modified in G1/G2 level of area only as per MEMC rule,2015. (f) The latitude, longitude, top & bottom RL of proposed location of year wise ROM production should be given in tabular for as per guidelines. (g) The year wise proposed production & development quantity has not been given pit wise as per guidelines. (h) All Geological reserves/ Block able reserves calculation & Year-wise production & development calculation tables should be modified accordingly. (i) The lapsed year of five year block i.e. 2015-16 to 2016-17 & 2017-18 (till August, 2017) should be discussed in review chapter. (j) The adequacy of man & machinery, calculation & their capacity should be discussed & justified. (k) It should be clarified whether HEMM proposed/used is own/hired/contract etc. with supporting documents. (l) It was observed during inspection that mining operation done unsystematically & so many ROM/mineral rejects stacks developed & formed in lease area. It needs clarification with valid reason.

**09. Conceptual Mine Planning-**Page-30(a) The mining proposal in present plan period & conceptual period, life of mine etc is not discussed properly. (b) The land used details should be discussed as on 01.4.2017& plan period /lease period/conceptual period up to 31.3.2020.

**10. Use of Minerals-** The use of High grade/Low grade bauxite should be discussed properly as per buyer specification.

**11. PMCP-**Page-41, (a) the existing land use pattern should be as on 01.4.2017& further plan period up to 31.3.2020 in tabular form. (b) Entire proposal in PMCP are incorrect. Total 46.58Ha area is degraded due to mining activity but no proposal has been given for restoration of mined out land. (c) A comprehensive proposal for restoration/rehabilitation of mined out land is to be given (d) The year wise afforestation/plantation as per MOEF&CC, Pollution control, EC guideline should be proposed within 7.5m statutory barrier/non-mineralized zone with suitable protective measures/water arrangement should be proposed. (e) Page-46, Environment impact assessment & EMP should be discussed properly. (f) Monitoring schedule of all environmental components should be given with respect to permissible limits & actual parameter in tabular form. (g) Location of different monitoring stations as per IBM/MOEF guidelines and frequency of monitoring may be discussed in text in tabular form.

**12. financial assurance,** Page-56, -(a) Land use pattern should be mentioned as on 01.4.2017 and subsequent plan period up to 31.3.2020. (b) The calculation given in financial assurance table under item/para 8.6 (Page-56) is also incorrect. It should be given the break-up of entire lease area of 186.96Ha. (c) The copy of original valid bank guarantee for extended period of five years for the A-others category mine as per provision of MCDR, 2017 should be submitted to IBM Gandhinagar Regional office. (Minimum 10Lakh)

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.

**13. Plan & sections:** - The plan & section should be mentioned, modified & updated plates as per above scrutiny & provision of appraisal of mining plan ,2014 & Rule 32 of MCDR, 2017 in further submission.

**Key Plan:** Lease area should be bounded by all sides showing latitudes and longitudes of extreme boundary points. Land use status i.e. Govt. land, private land & forest land, wind rose diagram etc must be shown by different colour code.

**Surface Plan:** The boundary pillar numbers with latitude, longitude as per state CGM, water nallah, pit benches, mineral stacks i.e. ROM, OB, Mineral rejects etc. should be shown with different colour code. The surface plan should be signed & certified by mine surveyor/mine manager with date & place.

**Surface Geological Plan & sections:** The existing/proposed exploratory core boreholes, mine pits with G1,G2,G3 level of exploration should be judicially shown.

**Production & Development plan& sections:** The plan & section should be updated & modified year with proposed benches, top & bottom RL & area etc. The protective measures, approach roads to working pits etc. should be proposed & shown properly. The year wise proposal should be modified pit wise in G1&G2 level of exploration only as discussed in field up to existing pit depth only.

**Conceptual Plan:** The pit position of mine at conceptual stage of tentative mining should be shown in conceptual plan with showing plan & block period of mining with levels as given in existing & proposed land used details.

**Reclamation Plan-**Existing & proposed afforestation is not shown properly in plan. Garland drain, retaining wall, rain water management and mine water discharge system is not shown in this plan.

**Environment Plan:** The plate is not prepared as per rule 28(5)(b) of MCDR 88 to show other details population, village boundary, types of land& features in 60m & 500 area etc.

**Financial Assurance Area Plan-**plate is not prepared as per manual of appraisal of mining plan,2014. The break-up of mine land area in plan should be matching with land used details given in table & text.Land use pattern should be mentioned as on 01.4.2017 and subsequent plan period up to 31.3.2020.

**Annexure:**

1. All supporting documents in legible form, from first grant of lease to till date, Mining plan & subsequent scheme of mining approval should be given in chronological order. The copy of lease deed, violation letter/ authenticated lease plan with co-ordinates etc should be enclosed. The other annexure/copy in Gujarati should be translated in either English or Hindi should be submitted.
2. A letter from state CGM, Gujarat for extended period of lease as per MMDR act 2015 & GPS coordinates of lease boundary pillars duly authenticated should be submitted in further submission with date & place.
3. The latest chemical analysis report of ore/mineral rejects etc. should be submitted from an NABL accredited Laboratory.
4. Field photographs of present mine workings, corner boundary pillars with number, RL, latitude and longitude as specified marked on it etc. should be submitted.
5. Quarterly monitoring report on air, water & noise is not enclosed as per category of the mine for last 2-3 quarters duly signed with date & place.
6. The copy of original valid BG of extended period should be submitted in the form of annexure.
7. 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.