

Scrutiny comments in respect of Mevasa Bxt mine, M.L./Sy.No.-330/new 437 over an area of 12.14Ha, non-forest land, A-others category mine, situated in Mevasa -village of Kalyanpur-Taluka, Devbhumi Dwarka-Distt. of Gujarat-State for approval of Review of mining Plan under rule 17(2) of MCR,2016 for approval period 2018-19 to 2022-23 of Mr Harjivan Purshotam Thanki.

Cover Page- The expiry of lease period should be given as per MMDR amendment Act 2015. The copy of the extension order is also to be enclosed.

Introduction- The brief history of mine should be discussed from first grant of mining lease, and subsequent approval of MP/SOM/Modification with period of approval etc. The copy of Environment Clearance /Consent to Air & Water etc should be discussed & submitted.

Location & Accessibility: - The type of land & ownership details of lease area should be given based on Govt. revenue record in tabular form.

Details of approved mining plan/scheme of mining-i) The ROM production, OB/Development, exploration, plantation done etc is not discussed with location, top & bottom RL, area/tonnage & grade etc. The NIL production reported for the year 2016-17 & 2017-18 till date should be discussed with valid reason with supporting documents. The year of exploration, location & depth of trial pits, agency etc. is not discussed with other details. It was observed during inspection that boundary pillar of lease area was not demarcated as per statute/lease plan. Further excavation of mine workings done within 7.5m of statutory or appears outside the lease area near magazine/BP-no.10 & southern side of lease area. It needs clarification with valid reason.

Para-3.4- It should also be discussed in brief regarding violation/SCN/court case if any & compliances reported along with supporting documents.

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

Geology-(a) The reserves & resources estimated in earlier approved mining plan on 01/01/2016 & depletion of production achieved till date should also discussed. (b) The reserves & resources is not re-estimated as per MEMC rules 2015, where no extrapolation/influence of extreme borehole is allowed in lateral extension & depth wise, below pit/hole depth. (c) The reserves & resources blocked in statutory barrier of 7.5m /power line/road/nalla etc. should be given. (d) The detail calculation of reserves & resources based upon trial pits/existing pits; Avg. bulk density etc. should be discussed. (e) The part of lease area is still devoid of exploration, therefore sufficient number of exploratory core borehole should be proposed in extreme boundary of lease area/existing pit also as per MEMC Rule, 2015. All Geological reserves/ Block able reserves calculation & Year-wise production & development calculation tables should be annexed. The cut-off grade & threshold value of bauxite mineral should be discussed as per IBM circular 2009. {Bauxite-Al₂O₃ - 30 % (Min) and silica (reactive) 5% (Max) & for aluminous laterite: Al₂O₃, 20 % (Min)}.The above threshold & below cut off grade should be consider as mineral rejects. The presence of silica content in bauxite more than 5% should be considered as waste. The copy of borehole logs/trenches & chemical analysis report of limestone/intercalated waste/mineral rejects etc. should be submitted from an NABL accredited Laboratory duly signed by authorized person with date & place.

Mining: - The existing pit dimension along with no of benches, top & bottom RL etc., in tabular form should be given as on 01.4.2017 or till date. It was observed during inspection that survey of lease area was done on 06/8/2017 & not updated. Resurvey the area & submitted in further submission. The backfilled pit no.2 NW of lease should be justified. Resurvey the area & submitted in further submission. The clay benches & bauxite ore body should be judicially shown. The proposed production & development quantity is not given pit wise & in tonnes also as per manual of appraisal of mining plan 2014. The above threshold value & below cut-off grade should be given as mineral rejects. The term "mineral waste" should be replaced as "mineral rejects". It needs correction in tables at page-17&18. 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. The quantity of actual mineral stacks available in mine & closing stock shown in returns should be discussed & justified with supporting documents. The mine workings done outside the lease area, as illegal mining should be discussed & justified with valid reason. The adequacy of man & machinery & their capacity should be discussed & justified.

Page-23, The mining proposal in present plan period & conceptual period should be discussed properly as shown in plan & sections. The land used details should be discussed as on 01.4.2018 & plan period up to 31.3.2023 & up to lease period/conceptual period. Page-26, the quantity of mineral rejects generation proposed for backfilling is not acceptable, only overburden/waste can be proposed for backfilling after exhaust of mineral quantity.(page-27, Table) The utilisation of mineral reject should be discussed properly. It was observed during inspection that large quantity of mineral rejects/low grade stacked in lease area, it should be shown properly with grade of stacks etc.

Page-32, 34 PMCP: -Land use pattern should be mentioned as on date or 01.4.2018 and plan period up to 31.3.2023 and lease period. The existing as well as proposed environmental protective measures should also be given in tabular form with latest analysis results.

Page-43, financial assurance: Land use pattern should be mentioned as on 01.4.2018 and plan period up to 31.3.2023. 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 on above scrutiny. As per details given under item 8.6, area considered fully reclaimed is 4.34Ha is not acceptable, since area is not declared fully matured. It needs proper justification with supporting plan & section, & area to be shown in financial assurance table.

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.

All plan and section, text & tables should be modified based on above scrutiny & deficiencies should be rectified as discussed during inspection.

1. **Lease Plan:** It should be translated in English & DGPS coordinates of boundary pillar with numbers, latitude; longitude duly authenticated by CGM should be enclosed.
2. **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.
3. **Surface Plan:** The survey of lease area was done on 06/8/2017 therefore plan should be updated by resurvey the area & boundary pillar number with latitude, longitude as per state CGM, pit benches, mineral stacks i.e. ROM, OB, Mineral rejects etc. should be shown properly with different colour code. The statutory barrier of 7.5m, electric power line, public road, nallah etc. should be shown & leaving barrier as per provision of MCR, 2016. The excavation of mine workings done within 7.5m of statutory or appears outside the lease area near magazine/BP-no.10 & southern side of lease area should be correctly shown. The surface plan should be signed & certified by mine surveyor/mine manager with date & place.
4. **Surface Geological Plan & sections:** The existing/proposed exploratory core boreholes, mine pits with G1,G2,G3 level of exploration as per MEMC Rule,2015 should be judicially shown. All sections should show contact with host rock at bottom or maximum possible mineral thickness based on GSI/DMG data.
5. **Production & Development plan& sections:** The year wise proposal should be shown properly with 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 UPL/G1&G2 level of exploration as per MEMC Rule,2015 only. The area & location of mineral rejects/waste dumping should be shown correctly. The conceptual plan should be updated & showing five year block up to life of mine.

6. **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.
7. **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.
8. **Environment Plan:** The plate is not prepared as per MCDR 2017 to show other details population, village boundary, types of land& features in 60m & 500 area etc.
9. **Financial Assurance Area Plan-**The break-up of mine land area occupied in most of the lease area is not shown correctly in table & text. Land use pattern should be mentioned as on 01.4.2018 and subsequent plan period up to 31.3.2023.

Plan & sections:

Annexure:

1. All supporting documents of mining plan & subsequent scheme of mining, modification approval letters, state DMG letter for deemed extension of mining lease as per MMDR Act,2015, DGPS coordinates of lease boundary pillars duly authenticated by CGM, should be submitted. The other annexure/copy in Gujarati should be translated in either English or Hindi should be enclosed.
2. The copy of field photographs of trail pits/core boreholes etc. with sign of geologist should be given in further submission.
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 marked on it etc. should be submitted.
5. Latest quarterly monitoring report on air, water & noise should be enclosed as per category of the mine for last 2-3 quarters.
6. The copy of original valid BG of extended period should be submitted in the form of annexure.
