Scrutiny comments of examination of Review of Mining plan with Progressive mine closure plan of Ajotha Limestone mine of Shri Arajan Bhai Khima Bhai Rathod over an area of 2.0 hect., Sur. No.389 situated in village Ajotha, Taluka Veraval, District Junagarh submitted under Rule 17(2) of MCR, 2016 and 23 of MCDR, 2017 for approval period 2018-19 to 2019-20 (Up to 31.3.2020).

1. Cover Page- The expiry of lease period needs to corrected as 31.3.2020 as non-captive used as per MMDR Amendment Act, 2015 "Mineral rules 2015 is incorrect, it need correction. Mine code 38GUJ08278 is to be given. The period of approval should be 2018-19 to 2019-20 (Up to 31.3.2020).
2. The name of technical person & their company name should be appropriate small font size. It needs correction.

Introduction-

3. Introduction chapter is not discussed properly. It needs to be discuss about the first grant & subsequent first/second renewals, application applied & renewal order passed by State, if any, to till date.
4. The approval of mining plan & subsequent SOM needs to be discuss.
5. Instant mine lease area is small area of 2Ha. & mine is running from 1979 to till date, therefore production achieved & reported in past to till date needs to be given in tabular form, else document may not be consider for approval.
6. Expiry of lease period should be 31.3.2020 as non-captive used.
7. The document is not prepared as per Appraisal of mining plan 2014 format. Entire document needs correction/modification.

Chapter no.2- Location and Accessibility

8. Email ID & contact number of lessee is not given.
9. KML file/Google image map/Authenticated DLR map of instant lease is not enclosed.
10. Lease boundary Pillar coordinate (page-4) needs to be reconcile with DLR map & furnished.

Chapter no. 3-Details of approved mining plan/scheme of mining

1. Para-3.1, financial year format is to be given correctly i.e.2013-14 instead of 2013-2014. It needs correction. The approval detail from 1998-99 to 2008-09 is not given.
2. The exploratory DTH borehole for scientific estimation of reserves/resources is not considered & accepted.
3. The correct dimension of existing trenches, number, location & actual depth is not given. Mining operations has been carried out irregular & deviated in Development, exploitation and environment monitoring in previous plan period. Give correct reason of it.
4. Survival of plantation/afforestation is very poor in previous plan period, more plantation needs to be proposed.
5. The existing pit dimension, area 0.5075Ha is incorrect & it was observed during inspection that most of the lease area was exploited & workings appears to be outside the lease area. It needs re-survey the area and updation.
6. Total excavated area & production achieved & reported in past needs to be discussed & justified. It seem that reported ROM production is excess as compare to pit area.
7. The online monthly & annual return has not been submitted in IBM website. Therefore compliance needs to be submitted.

Part-A

Chapter no. 1.0 Geology & Exploration

8. Page-10, the 8m depth of mineralization without any true exploration is incorrect & not acceptable. There is no term "Overburden" in lithology. It needs correction.
9. The exploratory trenches mentioned at page-5 but no such exploratory trenches were observed & verified in field. The copy of field photographs, logs, true dimension of trenches is to be given.

10. As per provision of MEMC Rules, 2015, no DTH boreholes is allowed & accepted for scientific estimation of reserves & resources. Entire reserves & resources estimated is wrong & incorrect. Bulk density test needs to be carried out & submitted.
11. Page-10, It was observed during inspection that survey of lease area was not updated & correctly shown pits dimension, mRL of area on Surface Geological plan & section.
12. The area should be re-surveying & submitted. The existing pit dimension is not correctly shown, it should be given the corrected resurvey of lease area & furnished.
13. Page-16, The Re-estimate the reserves & resources & detail calculation is to be taken only up to true depth of mineral area i.e.3-4m in irregular manner of pit/trench. It needs correction in entire reserves & resources. The section is to be shown up to true depth of mineral only (up to pit/trench depth), imaginary lithology should not be shown & acceptable. Assuming limestone continuity up to 11mRL (8m depth from surface) is baseless. Reserve estimation calculation should be given on page no 16. mRL of lease area needs to be reconcile & corrected.
14. Entire calculation & Tables needs to be revised & modified.
15. Page-12, Entire mineralized lease area need to be proposed & explored minimum G2 level of exploration i.e.04 core bore holes up to depth of mineralization in corner of lease boundary in financial year 2018-19 in minimum 400mx400m grid interval & completion of work on or before 01.4.2019 as per provision of MCDR,2018 & reported to IBM/CGM. Further as per Rule 24 of MCDR, 2017, lessee should submitted the FMCP to competent authority for approval, two year prior to the proposed closure of mine. Therefore Draft FMCP needs to be submitted to this office in further submission.

Chapter no. 2-Mining

16. Since entire estimation calculation is wrong, therefore mining proposal is also wrong. Therefore entire proposal needs to be revised & modified.
17. It was observed during inspection that boundary pillar of lease area were not available & erected as per statutes. The existing pit dimension (0.5060Ha) & correct excavated area & production achieved & reported needs to be justified.
18. Since category of mine is B-manual, therefore only J/H drilling & blasting with manual breaking & loading of limestone with tractor trolley combination is to be proposed.
19. Proposed scale of production is on higher side. It cannot be accepted for manual working & very small area of 2.0 hect. with limited thickness based upon trench/pits.
20. In present plan, proposal of limestone target is about 40000T without any true exploration data/reserves is not acceptable.
21. Reduce the annual targeted production based upon the true potential area of existing pit/trench only. It needs correction.
22. The production table (table No.-2.2) is to be modified as per appraisal of mining plan 2014 format. It needs correction. Entire proposal needs modification at pages 22,23
23. Plantation survival rate is very poor; therefore more plantations (100Plants/year) is to be proposed in present Review of mining plan.
24. Page-24 annual planning & reduced optimum annual ROM targets are to be modified & corrected.
25. Conceptual mining: There is no OB/waste generation, therefore conceptual stage of mine may be water reservoir only after mineral exhausted. No reclamation is required except afforestation/embankment in 7.5m barrier.

Chapter no. 3 Mine Drainage

26. The water table shown at 10-12mRL without any study is incorrect. Same should be based upon the field observation. The minimum & maximum depth of working needs modification, Reconcile & corrected.

Chapter no.8-PMCP

27. Page-34,The present land used pattern is to be given as on 01.4.2018. The table is to be modified by re-survey the lease area. Excavated area, mineral stack, office, old workings,

Coconut trees etc. is not updated, re-survey & submitted. It needs correction.

28. Page-38, No of plants should be proposed 100 instead of 20 & survival should be about 80%. It needs correction.
29. Page-40-45, The plantation proposal should be given in "others" column instead of left blank column.
30. Page-47, FA-Table & present land used details & area to be utilized in plan period needs to be corrected. Reconcile the table in PMCP & existing pit dimension & furnished. The detail calculation should be modified based upon above scrutiny.
31. The quality of document is not up to mark, It needs revision & overall modification.

Plan & Section:-

1. **Surface Plan:** It was observed during inspection that in surface plan, excavation of lease area is not matching with field & old workings, mineral stack is not updated. Further BP co-ordinates is not given as per DLR map. Re-survey the area & submitted. Surface plan should be signed by surveyor.
2. **Surface Geological Plan:** The BP co-ordinates reconcile with DLR map & corrected. The existing pit, trenches with mRL, proposed core boreholes etc. needs to be given. The geological axis of G1/G2 level of area is not marked.
3. **Production & Development Plan**: Plate name need to be given "Production & Development Plan Instead of development Plan. yearly proposal should be shown in G1/G2 level of area only & environment protective measure should be shown. Litho below depth of pit/trench is not to be shown in sections. Statutory barrier of power line, road is not shown & proposal needs to be given outside statutory barrier.
4. **Environment Plan:** The position(s) of the adjacent leases are not shown on the Environment Plan; Land use in 60m/500m beyond the ML area is to be shown including human settlement etc.
5. **Reclamation plan:** The title of plate "Progressive Mine Closure Plan" should be replaced as reclamation Plan & updated as above scrutiny.
6. **Conceptual Plan:** Pit configuration at the ultimate stage not marked, benching pattern not indicated in section, ultimate depth of working not marked, approach to faces at conceptual stage not marked.
7. **Financial Area Assurance Plan:** Plan should be updated & modified as per above scrutiny.

Annexures-

1. The copy of DLR map signed by authorized person & Lease sketch plan should be submitted.
2. The copy of field photographs of present mine workings, exploratory pit/trenches with dimension, location, Boundary Pillars with no; Lat & Longitude, mRL etc. should be submitted.
3. Photo ID & contact details of lessee is not submitted.
4. Latest few more chemical analyses of pit/trench samples from NABL should be submitted.
5. Quarterly monitoring of Air, Water, Noise, land etc. in last quarter has not been enclosed.
6. The copy of valid BG/Original BG of extended period of lease should be submitted.
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.

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