

SCRUTINY COMMENTS ON SCHEME OF MINING OF NEENDAKARA&CHAVARA, BEACH SAND MINE OF M/S KMML, GO (MS) NOS. 175/2010/ID AND 214/2011/ID, OVER AN AREA OF 203.802 HA. IN NEENDAKARA, CHAVARA, PANMANA, KULASEKHARAPURAM, VADAKKUMTHALA & PUTHUPALLY VILLAGES, KARUNAGAPALLI TALUK, KOLLAM DISTRICT, KERALA STATE. SUBMITTED UNDER RULE -12(2) OF MCDR, 1988. NON-FOREST AREA FOR THE PERIOD FROM JULY 2016 TO MARCH 2021.

COVER PAGE

1. Name of the mine to be specified and rule for submission may be corrected as 'Scheme of Mining' and 'under Rule 12(3) of MCDR, 1988' respectively.
2. Type of the mine may be written as: Opencast, Category-A (OTFM), Govt. of Kerala undertaking; description on UNFC classification may be removed from the cover page.
3. Address of the qualified person may be removed from the cover page and placed in the text part at appropriate location.
4. All undertaking & certificates to be signed by the authorised by the Lessee/ nominated owner & Qualified Person are to be placed in Part-B of the document in accordance with new standard guidelines. Besides, in the consent letter, the rule for which the document is submitted as rule 24 12 of MCDR 1988 is not correct. It should be mentioned 12(3) of MCDR, 1988.
5. Validity of ML period must be given.

INTRODUCTION

6. Date of first grant of the ML, subsequent renewals, references of deed executions, reference of last approved mining plan, present status of CRZ clearance and other specific orders / guidelines or notifications received from the regulatory bodies time to time pertaining to this ML may be discussed in this chapter briefly. The reasons for not proposing mining operation in block I, V & VII may be briefed with the latest position of the same.

GENERAL

7. Para 1.0 (f): As per Rule 15(1) of MCR, 2016 a qualified person should have a degree in mining engineering or a post graduate degree in Geology with professional experience of minimum five years of working in a supervisory capacity in the field of mining after obtaining the degree. Accordingly copies of relevant educational qualification and professional experience certificates may be enclosed. In the light of the above remarks, the text part must be attended, wherever applicable.

LOCATION & ACCESSIBILITY

8. Para 2.0 (a): Latitude & Longitude of any boundary point should be furnished here; identification no. of the pillar may also to be written. Expiry date of the ML is not mentioned.
9. Para 2.0 (b): Type of the land, Latitude & Longitude of all corner/ boundary pillars should be mentioned here in a tabular format.

DETAILS OF APPROVED MINING PLAN

10. Para 3.2: Reason for modification of the approved mining plan in last occasion should be furnished in this para.
11. Para 3.3: all reviews of approved proposals should be furnished for F.Y. 2014-15 and 2015-16 in accordance with approved Modified Mining Plan dated 06.02.2015.

12. Para 3.4: Inspection details of IBM in connection with submission of draft Mining plan/ Mod. Mining plan may be removed; copy of violation letters if any received from IBM and reply compliance letters from lessee may be enclosed with the document.
13. Para 3.6: Not applicable, since present Scheme of Mining is submitted under Rule 12(3) of MCDR, 1988.

PART- A

14. Para 1.0 (e): *Year of exploration, spacing and depth of boreholes drilled by AMD, THM% with depth should be furnished in this chapter in accordance with AMD exploration report. Since total 480 nos. of boreholes are drilled in the ML area by AMD, out of which 330 nos of boreholes are drilled in block 3, at least 10% of borehole details may be furnished in this para with THM % analysis. Location of drilled boreholes gridlines should be drawn and demarcated in the Geological Plan (from 55 to 91).*
15. Para 1.0 (i): Please confirm the future exploration program of AMD in the leasehold area for other blocks, viz. Block 1, 5 and 7.
16. Para 1.0 (j): *Although most of the Block -3 deposit is explored in details by AMD with close grid interval, or G1 stage of exploration, but a significant area in Block -3 is thickly inhabited by local villages and blocked by statutory barriers, plant, office buildings etc. These areas are not readily available for mining by M/s KMMML at present, in view of lack of land surface right and other techno- legal issues. Hence, geologically proved resources in these areas should be classified under 'blocked ore resources' under UNFC Cat. 211. In view of above, 'blocked ore resources' should be estimated separately in reserve/ resources calculation. Certain areas in Block -3 which are readily available for mining should only be classified under 'Proved Reserve' or UNFC Cat. 111. Method of estimation of reserve and resources should be written as 'surface area exposure method'. Mined-out, reclaimed or rehabilitated areas in Block-3 should be excluded from estimation of Reserve/ Resources. Mined-out areas should be demarcated in the Geological Plan and other plan & sections.*
17. Para 1.0 (k): This para is not found to be included in the document as per the standard guidelines.
18. Para 1.0 (l): Subject lines pertaining to this para are NOT found to be prepared as per the standard guidelines. Proved Reserve (UNFC Cat. 111) and Blocked Resources (UNFC Cat. 211) of Block-3 deposit should be furnished in table-10.
A separate column may be inserted in accordance with the Centre for Earth Science Study (CESS) recommendation for beach sand wash collection per annum. Approved replenish able beach sand wash collection (per annum) should be furnished as Replenish able Reserve/ annum(UNFC Cat. 111).
19. Para 2A, under mining, the production for beach sand washing and the inland production furnished for the year 2013-14 to 2015-16, but not described about the beach washing/ replenish able reserves/ resources collected from the coast, which ought to have been. Besides, the location of beach washing as per the plate No.3 & 5 are not clear for understanding. Further, as per the CESS restriction/ direction to limit the beach wash collection to 134,580 tonnes per annum, a copy of the order or report if any may be enclosed in the text annexure for reference.
20. In same above para, the photograph enclosed to show the beach wash off collection, the name of the location and the block may be indicated. In table-13, the sites Ponmana&Anchumana should be indicated for the future production location, which must be brought out through photographs for reference.

21. In para 2(e), it is given the mined out areas are back filled with tailings, but while checking the plan and section submitted by the lessee company were not updated appropriately. In the light of the above remarks, the plates must be attended, by depicting the virgin areas/ worked out areas, which are reclaimed & rehabilitated.
22. In para 2(f), under conceptual plan it is mentioned in this para and other para, that the mine will be operated through semi-mechanised method, which is not appropriate, since the method proposed is A(OTFM-other than fully mechanised mine, wherein both machines and the labour forces are used, but as such now there is no semi-mechanised method proposals exist. Therefore, the text para need to be attended accordingly. Besides, it is no conceptual plan for the other blocks 1, 5 & 7 in this submission is also not correct. Even though there are no proposals in the present submission, complete four blocks plan/section should be brought out for reference.
23. Para 6.0 (g): Quantity of water required (in cum) for processing each tonne of raw sand should be indicated here with water balance chart.
24. Para 7.0 (b): Requirement of a Geologist for 'Category A' mine is mandatory as per Rule 42(1) (i) of MCDR, 1988, this para may be corrected accordingly.
25. Para 8.1 (i): Areas as mentioned in Block -3, land use pattern are not correct; the same may be corrected in accordance with latest surface plan. Besides, the area back filled and rehabilitated if any within the ML area may be brought out through photographs and the area calculation in the land use pattern and the financial assurance calculation table also should be updated.
26. Para 8.1(vii): Villages present around 5 km of the ML area should be furnished here in a tabular format with population and average distance.
27. Para 8.3.5: Summary of year wise proposals for item no. 8.3 on protective measures for reclamation and rehabilitation works is not found be provided as per the standard tabular format.
28. *Para 8.6: 'Areas put on use at the start of the Scheme of mining' should be corrected in accordance with latest survey/ surface plan and accordingly 'net area calculation for financial assurance' should be updated. 'Areas put on use at the start of the scheme of mining' should match with the total ML extent of 203.802 Ha. Complete reclaimed or rehabilitated ML areas and non- mining blocks should be furnished in the FA table. Copy of valid Bank Guarantee till 31.03.2021 should be enclosed.*

PART-B

29. **Para 10, Plates:** Surface plan & Geological plan is found to be provided in 1: 4000 scale, a copy of approved scale relaxation letter under Rule 27 (d) of MCDR, 1988 from the Chief Controller of Mines, IBM is required to be enclosed.
 - a) Surface Plan (Block-III-Plate no. 2): ML area comprises of four blocks, but the lessee company submitted surface plan for the block-III only and not for the blocks no. 1, 5 & 7. Surface plan should be submitted for all the blocks by indicating the past worked out inland areas/ present workings in the inland and the beach sand wash collection/ replenishable heavy sand areas may be demarcated in Block -3 & other blocks also. Co- ordinates of the boundary pillars should be written in the surface plan in a tabular format. In the light of the above remarks, all the plates must be attended revealing the existing land use pattern for reference.
 - b) Geological Plan (Plate no. 3): THM sand depleted, mined-out areas should be demarcated in the Geological Plan. Blocked ore by human settlement and by statutory barriers, plant, office buildings etc. are required to be demarcated in the plan.
 - c) Geological Sections (Plate no. 4): Drilled boreholes are to be drawn along the section lines. Proved reserve (Cat.111), blocked ore resources (Cat. 211) and other possible UNFC categories, if any, should be demarcated on the section. Ultimate Pit Limit (or depth) should be drawn on the sections.

- d) Flow diagram and material balance Plan (Plate no. 9): This plan may be removed and enclosed separately as annexure.
- e) Reclamation Plan and Financial area Assurance Plan are not found to be enclosed with the document.

30. **Para 11, Annexure:** Following items are required to be annexed with the document:

- a) The copy of the violation letter dated 23/4/2014 is enclosed before the annexure-9, which is not indicated in the annexure list.
- b) Copy of the approved mining plan approved dated 2/1/2013 need to be given in the list of annexure at Sl. No.9.
- c) Annexure-16 contains only 6 pages, but indicated as 12 pages, correction should be made appropriately.
- d) Copy of the modified Mining Plan approval letter by IBM dated 06/02/2015.
- e) Updated Reserve & Resources calculation.
- f) Copy of the THM% analysis report of drilled boreholes (minimum 10% of the total collected samples), analyzed by NABL/ other Govt. laboratory.
- g) Though letter concerning the relaxation is enclosed, but the copy of approved scale relaxation letter under Rule 27 (d) of MCDR, 1988 from the Chief Controller of Mines is not enclosed.
- h) Few photographs of mining operation, showing the beach workings from HTL & LTL for clarity & reference and aesthetic environment on the ML area.
- i) Copy of valid bank guarantee, valid up to 31.03.2021.
- j) The product of specification sheets enclosed in single page, but indicated as four nos. of pages.