MINING PLAN INSPECTION REPORT UMRANGSHU LIMESTONE MINE, 35HA. NECEM LTD.

Inspected By: S. K. Mohapatra (SMG)

Date of Inspection: 15.07.2018

TEXT

- 1.0 Mining plan needs to be prepared & submitted as per the new and updated prescribed format given in "IBM manual for appraisal of Mining Plan 2017. Accordingly all the consents/ certificates enclosed needs to be as per the format given in the above manual.
- 2.0 In the introduction chapter a brief history of the mining lease to be given depicting all the statutory clearances/ court cases (if any) etc. with documentary evidence from the grant of the mining lease to till date in chronological order.
- 3.0 In page no 3, it has been mentioned, "Further survey by technically qualified person and above mentioned MP/SOM has formed the basis of this review of mining plan" which is incorrect and needs to be rectified.
- 4.0 The details of approved mining plan and review of mining plan needs to be furnished in chronological order & in a tabular form with documentary evidences. Further the reason for modification with proper justification (under 3.6, page no 12) needs to explained in detail.
- 5.0 In page 13; under physiography, it has mentioned that the HAP & LAP of the region are about 350 & 620 AMSL and 520 & 340 AMSL respectively within the Ml area, which needs to be rectified.
- 6.0 Summary of exploration carried out should be depicted indicating the details of location of boreholes, total depth, depth of mineralization etc in a tabular format. Exploration report along with maps needs to be provided with the document along with the analysis report of M/s. Survey and Surveillance (India) Pvt. Ltd.
- 7.0 The document does not spell about any time bound program of exploration during the proposed period. The future exploration program needs to be strictly adhered as per Rule 12 (4), (5) & (6) of MCDR 2017.
- 8.0 A fresh re-assessment of the resources/ reserves needs to be carried out as per the extant provision given in 'Mineral (Evidence of Mineral Contents) Rules 2015' by drawing the section lines across the strike of the deposit and considering all the existing boreholes and longitudinal sections will drawn accordingly. Level wise & section wise resource/ reserve figures to be reported. Accordingly categorisation of resources/ reserves as per the UNFC system needs to be furnished.
- 9.0 Barrier zone/No mining zone is allowed all along the perennial stream flowing within the lease area as per Rule 12(d) of MCR 2016, accordingly UNFC categorisation of resource/ reserve needs to be carried out.
- 10.0 Calculation of blocked resources were carried out by surface area method where as other resource/ reserves are in cross sectional method needs to be modified and the resource/ reserves calculation need to be furnished in cross sectional method only.
- 11.0 The life of the mine needs to be calculated as per the fresh re-assessment of the resources/reserve.

- 12.0 The existing method of mining needs to be furnished exactly as per the method adopted and carrying out by the lessee and accordingly the proposed method also.
- 13.0 The calculation table for year-wise production furnished in the text is not matching with the plan and sections.
- 14.0 A table indicating the boundary extents of the ultimate pit needs to be furnished.
- 15.0 The details of construction of check dams/ settling tanks/garland drains etc. shall be given along with their design in the chapter on mine drainage. The mode of disposal of surface run-off water shall be discussed indicating the schematic route showing its discharge with proposed provisions of check dams/ settling tanks/ garland drains etc. water quality monitoring stations etc. The proposal shall also to be shown in the reclamation plan.
- 16.0 Detailed calculation of waste generated during plan period and conceptual period, area required for disposal, manner of disposal, no of terraces, height of each terrace, protective measures required to be furnished and should be reflected in respective plan & sections.
- 17.0 Use of mineral and mineral rejects chapter needs to be recast with proper justification.
- 18.0 Under employment potential chapter, existing and proposed to employ under different categories needs to be furnished in two different columns.
- 19.0 Predominant wind direction needs to be furnished in text.
- 20.0 A risk assessment report along-with disaster management plan of the mining unit shall be enclosed duly approved by the management of the mine/ competent authority.
- 21.0 An emergency preparedness plan duly approved by the management of the mine/competent authority to be enclosed.
- 22.0 All pages of the text, annexure & plates shall be signed by the qualified person.

ANNEXURE:

- 1.0 An undertaking from the owner on commencement of mining operations only after getting the permission from all the concerned statutory bodies as well as for carrying out the proposed time bound exploration program.
- 2.0 Copy of the exploration report along with map carried out by DGM, Assam.
- 3.0 Copy of the test reports of M/s. Survey and Surveillance (India) Pvt. Ltd.
- 4.0 Colour photographs of all lease boundary pillars showing the co-ordinates.
- 5.0 Copy of the surveyor's certificate to be enclosed.

PLATES:

- 1.0 Key plan:
- 1.1 Key plan shall be prepared strictly as per the extant provisions specified under rule 32(5)(a) of MCDR 2017.
- 1.2 Location of the ML area shown in Location Plan (Plate No-1A) is not correct and needs to be rectified.
- 1.3 All the plans and sections needs to be furnished as per
- 2.0 Surface plan:
- 2.1 All the plans and sections needs to be furnished as per rule 31 of MCDR 2017.
- 2.2 The surface plan shall also to be signed by the manager of the mine.
- 2.3 Some of the features not shown in plan but shown in index need to be corrected.
- 2.4 Contours shown out-side of the Ml area needs to be removed.
- 2.5 Grid lines are shown in local co-ordinates, which may be changed to UTM grid line.
- 2.6 Surveyor needs to be signed in the surface plan who has conducted the field survey.

- 2.7 The perennial nala flowing N-S direction to be shown distinctly in prominent colour code.
- 2.8 Updated quantity of waste lying in the waste dumps shown in the ML area needs to be furnished in both text and plates.

3.0 Geological plan/ sections:

- 3.1 Section line to be drawn across the strike considering the existing boreholes.
- 3.2 Contact of litho units needs to be shown in prominent colour codes.
- 3.3 UPL shall be shown in the geological plan/ section as per the new section lines and UNFC shall be re-visited accordingly.

4.0 Mine development/ production plan & sections/ dump plans & sections/ conceptual plan/ sections:

- 4.1 Proposed production plan & section are needs to be prepared based on the financial year (remove 1st year, 2nd year etc.).
- 4.2 UPL shall also to be shown in the plan/ sections.
- 4.3 Indexs are not matching as per the proposed features.
- 4.4 Proposed developments are not matching as furnished in the text.
- 4.5 Conceptual plan and sections needs to be prepared i.r.o the geological plan & sections and as per the revised sections and UPL.

5.0 Environment plan:

- 5.1 Environment plan shall be prepared strictly as per the extant provisions specified under rule 32(5) (b) of MCDR 2017.
- 5.2 All existing surface features to be shown in the environment plan.
- 5.3 Existing afforestation & reclamation carried out, if any, shall be shown.
- 5.4 Adjoining lease area shown in environment plan is not correct and needs to be rectified.

6.0 Reclamation plan/ sections:

- 6.1 Existing pit and dumps are to be shown in lighter shade and proposed are in dark shades.
- 6.2 The proposed plantation & reclamation shall be indicated in a tabular form indicating the proposed year of carrying out the above said activity/ area to be covered (ha.)/ no. of saplings to be planted/ species of saplings to be planted along with location of the activity. The table should be given separately for reclamation & afforestation program proposed.
- 6.3 Proposed points of AAQ, water & noise monitoring stations need to be shown.
- 6.4 The water management plan showing the position of garland drains/ retaining walls/ check dams/ settling pits should be clearly indicated in this plan.
- 6.5 Indexs are not matching as per the features shown in the plan.

7.0 Financial assurance plan:

- 7.1 The existing/ proposed usages under different categories shall be coded in different colours with specific boundaries and reported in index.
- 7.2 Financial assurance table needs to be furnished in the plan.

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