

**Scrutiny Comments on ‘Modification of Mining Plan’ in respect of Karigatta Limestone Mine of M/s Cement Corporation of India Ltd., ML No. 1880, covering 68.91 Ha. of area near Sedam and Injepally Villages, Sedam Taluk of Kalaburagi District, Karnataka State.**

**COVER PAGE**

1. ML no. to be mentioned in the cover page.
2. Category of the mine should be mentioned as ‘Open-cast, Cat. A, Fully Mechanized, Captive-use’.
3. Address of the lessee and the qualified person may be removed from the cover page.
4. Educational qualification the qualified person should be mentioned.

**INTRODUCTION**

5. As per the Govt. of Karnataka letter no. CI /132/CMC/2017 dated 27.12.2017; extant mining lease period has been extended up to 03.04.2033 in view of the MMDR (amendment) Act 2015. Hence, mining lease expiry date should be corrected as 03.04.2033 in all relevant places of the document.
6. Date of first grant of ML, date of commencement of mining operation, subsequent lease renewals with period before enactment of MMDR (amendment) Act 2015 should be mentioned here briefly. Also, status of the EC and other Govt. orders pertaining to this ML should be mentioned in this chapter. Reason for non-working of the ML should be furnished.

**GENERAL**

7. Para 1.0 (a): IBM registration no. of the mine and mine code may be mentioned here.

**LOCATION AND ACCESSIBILITY**

8. Para 2.0 (a): Latitude and longitude of the boundary pillars duly verified and authenticated by the State DMG should be mentioned here. Date of grant of the lease and expiry date should be corrected. Name of the nominated owner on behalf of the M/s Cement Corporation of India Ltd. (i.e. lessee) should be written here.
9. Para 2.0 (b): In the details of the lease area; type of the land with survey nos. should be specified (ref. page 5).
10. Mining lease boundary co-ordinates as written in this para (ref. page no. 6) are not found to be certified by the State Govt. of Karnataka; authenticated mahazar/ sketch showing the mining lease boundary co-ordinates has not been provided with the document.
11. Copy of the high resolution satellite image, obtained from CARTOSAT-2 satellite LISS-IV sensor on the scale of cadastral map, as on 31st March for that financial year, covering the mining lease and an area of 2 kilometres from the lease boundary require to be enclosed with the document.

## DETAILS OF APPROVED MINING PLAN

12. Para 3.1: No document for this ML has been submitted by the lessee after 1996-97; reason for non-working of the mine and non-submission of the document should be mentioned.
13. Para 3.6: Reason for present modification in Mining Plan should be corrected.

## PART-A

14. Para 1.0 (c): In local geology, quality and average thickness of limestone within the ML area may be mentioned; thickness of the black cotton soil is not mentioned correctly.
15. Para 1.0 (e): Details of exploration carried out in the ML area should be furnished in a tabular format mentioning: borehole nos., location, depth of drilling and year of drilling. Copy of all drilled boreholes logs should be enclosed with the document.
16. Para 1.0 (i): Nil exploration proposal is not acceptable. During site inspection and from verification of geological plan/ sections it is observed that entire ML has not been explored by boreholes under G1 stage of exploration; hence suitable exploration programme may be given to cover entire mineralized as per the provision of Rule 12(4) of MCDR, 2017.
17. Para 1.0 (j): Reserve and Resources of the deposit should be updated as per the revised threshold value notified by IBM dated 25.04.2018; table no. 11 requires to be corrected accordingly.
18. Para 1.0 (k): Section wise estimation of reserve and resources should be corrected as per the following comments:
  - a) No resource estimation has been carried out at north of the ML area (i.e. north of the section line A-A'). Similarly, no resource estimation has been carried out beyond 100m southern influence from section line A-A'.
  - b) Recently drilled boreholes viz. BH-14, BH-15, BH-16 & BH-18 have been incorrectly projected over section no. A-A' since average distances between this section line and said boreholes are more than 200m.
  - c) A new section line requires to be drawn at the north of the ML to cover all recently drilled boreholes for accuracy of estimation of reserve and resources.
  - d) Resources beyond the influence of the borehole no. BH-X/g located along section no. A-A' should be placed under UNFC Cat. 333 due to lack of exploratory boreholes in that area.
  - e) Along section nos. B-B' and C-C', UPL and thickness of the proved reserve (UNFC cat. 111) is incorrectly considered below the depth of the drilled bore holes; the same should be restricted up to the end of the mineralization.
  - f) 100% recovery of the limestone ROM should be duly justified.
19. Para 1.0 (l): Level of exploration wise reserve and resources should be corrected in table nos. 14 and 15 in light of corrected reserve and resources of the mine. Date of estimation of reserve/ resources in should be updated as on 01.01.2019 in table no. 16, limestone quantity may be furnished in million tonnes.
20. Para 2.0 A (a): Description of existing mining and proposed method as deliberated in page no. 20 are found inconsistent with the mining proposals and year-wise development proposals as mentioned in page nos. 26 to 28. Similarly, adequacy of mining machineries as discussed from page nos. 21 to 24 are found to be incorrect and inconsistent with each other.

21. Para 2.0 A (b): In-situ excavation proposals, year-wise top soil generation quantity should be mentioned (ref. table no. 19).
22. Para 2.0 A (c): Year-wise, section wise estimation of production and development quantity (ore and waste) is not mentioned in this para. Existing degraded land area (i.e. mine pit) and adjacent areas to the mine pit should be proposed for development during this Mod. Mining Plan period (2018-19 and 2020-21).
23. Para 2.0 (d): Statement as furnished under this para is not tallying with the adequacy of proposed mining machineries (ref. page nos. from 28 to 29).
24. Para 2.0 (f): Conceptual mine planning should be corrected in light of re-estimation of reserve of the deposit.
25. Para 3.0 (a): Depth of the minimum and maximum levels of ground water table should be corrected.
26. Para 4.0 (c): Mode of disposal/utilization of top soil and year-wise necessary environment protective measures should be furnished in this para in a tabular format.
27. Para 5.0 (a): Furnished information under this para are found to be incorrect and outdated, cement plant is not found located adjacent to this ML. Location of proposed crusher with capacity, location of the captive cement plant, proposed capacity of the plant, mode of transportation of ROM to the plant, chemical and physical requirement of ROM should be discussed in this para. Blending of ROM, if arises, may also be discussed in this para.
28. Para 7.0 (b): In employment potential, statutory requirement of mining engineer and geologist should be furnished as per the provision of MCDR, 2017.
29. Para 8.1.2: Proposed sampling stations of air water, noise and soil (core& buffer Zone) may be given in this paragraphs in a tabular form.(ii)Year wise plantation details with area, no of saplings, species proposed and expected survival rate may be given in a tabular form.
30. Para 8.2: The sources of air, water and noise pollution (considering all the possible sources of pollution in mining activities), existing mitigation method and proposed mitigation methods may be enumerated in a tabular form.
31. Para 8.3.5: 'Summary of year wise proposal for item no. 8.3' individual proposals from F.Y. 2018-19 and 2020-21 are not mentioned as per the format.
32. Para 8.4: Name (with designation) and contact no. of the person to be contacted on behalf of the lessee in case of any emergency should be finished here.
33. Para 8.6: In the financial assurance table (ref. table no. 37), under infrastructure head, additional area requirement for proposed crusher has not been identified. Similarly additional area requirements for proposed road construction, storage of top soil, mineral storage etc. have not been furnished in this table. In view of the above comments, financial assurance table should be duly corrected and re-furnished.

## **PART-B**

### **34. Para 9:**

- a) Name and designation of the person signing the undertaking/ certificates on behalf of the lessee should be mentioned. Copy of the board resolution on nominating the authorized signatory should be enclosed with the document.

- b) An additional undertaking from Qualified Person may be enclosed stating “all plans and sections have been prepared based on the precise area map authenticated by the State Government of Karnataka.”

35. **Para 10, Plates:** All plans and sections, except key plan and environment plan, should be prepared in a scale of 1:1000 or 1:2000 scale as per the provision of MCDR, 2017. It is to be mentioned in all plans that it is “prepared based on the lease sketch duly authenticated by the State Government of Karnataka.”

- a) Key Plan (Plate no. I): Prominent air direction (preferably rose diagram) and other mining lease areas should be shown in this plan.
- b) Surface Plan (Plate no. III): During site inspection it was observed that existing mining bench positions and boundary pillars were not matching with the surface plan; hence the plan should be corrected and updated accordingly. Surface Plan should be duly signed by a surveyor, name and registration no. of the surveyor also to be mentioned in the plan. All drilled boreholes should be clearly numbered and coloured as per the standard symbol.
- c) Geological Plan (Plate no. IV): A new section line requires to be drawn at the north of the ML to cover all recently drilled boreholes for accuracy of estimation of reserve and resources. Demarcation of stages of exploration (G1 and G3) should be corrected in this plan. Boreholes ID nos. of drilled holes are not legible.
- d) Geological Sections (Plate no. IV-A): Recently drilled boreholes viz. BH-14, BH-15, BH-16 & BH-18 have been incorrectly projected over section no. A-A'. Demarcation of UNFC should be corrected in all sections. Contact of shale and limestone are not demarcated in the sections. Lower limit of the UPL should be restricted up to the proved depth of the mineralized zone.
- e) Production and Development Plans (Plate nos. V-A & V-C): Proposed bench configuration with top and bottom RL should be demarcated in the plans. Contour heights of the untouched areas should be joined with the proposed pit design.
- f) Environment Plan (Plate no. VI): This plan should be prepared in a scale of 1: 5000. Proposed air, water, noise and soil monitoring stations are to be marked in core and buffer zone. Various types of proposed environment protective measures viz. afforestation, retaining wall, check dams, gully plugs and other measures required in this terrain are not shown.
- g) Financial Assurance Plan (Plate no. IX): Outlines of the proposed mine workings, dumps, stacks, etc. covering all the items under the financial assurance table at the end of F.Y.2020-21 may be shown in this plate and it may be corrected in accordance with the comments offered for para no. 8.6, text part.

36. **Para 11, Annexure:** Avoid any type of stamping in the annexure, following items are required to be annexed with the document:

- a) Copy of the mining lease deed for the first grant.
- b) Copy of the Mahazar/ML sketch showing boundary pillars co-ordinates: issued and duly certified by the State Govt. of Karnataka.

- c) Copy of the company board resolution mentioning the nominated owner/ authorized signatory on behalf of the M/s Cement Corporation of Ltd.
- d) Copy of the photo identity proof of the authorized signatory.
- e) Copy of all drilled borehole logs.
- f) Corrected feasibility study report.
- g) Copy of the chemical analysis report of limestone obtained from drilled boreholes from NABL or similar accredited laboratory, at least 10% of the collected samples.
- h) Copy of the common boundary working permission with adjacent ML No. 2015, approved by the DGMS.
- i) Copy of valid Bank Guarantee, in accordance with Rule 27(1) of MCDR, 2017, valid till 31.03.2021.
- j) Few photographs of the mine pit, boundary pillars etc.
- k) Copy of specific orders / guidelines or notifications received from Govt. regulatory bodies pertaining to this ML.

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