

Scrutiny comments on the Modification of approved mining plan submitted by M/s India Cement Ltd. For Vishnupuram Limestone mine over an extent of 316.47 hectare in Wadapally village Damarcherla Mandal, Nalgonda District, Telangana after field inspection dated 18.02.2020. Inspection accompanied by Sri Janki Ram Reddy, Sri Uday Bhaskar, Sri K.Srinivas-QP, Sri P.Bheemraj-Mine Manager.

### **General and Review**

1. As the modified mining plan has already been approved for the reason of deemed extension of the lease period upto 31.03.2030 as per the MMDR Ammendment Act-2015, the current mining plan document needs to be submitted under the head Review of Mining Plan instead of Modification of Mining Plan.
2. As there is no provision for group of qualified persons in MCR-2016, only one qualified persons be nominated to prepare the document.
3. The document needs to be prepared as per the IBM manual on appraisal of mining plan- 2014.
4. The reason for not producing shale and clay has not been discussed any where.
5. The shape of the precise mining lease area in all the Plans should match with the shape of the precise mining lease area as per the lease sketch authenticated by state DMG.
6. Further, Position of State highway has shifted more towards east wrt to the last approved document as observed after comparing from the surface plan, needs to be corrected.
7. Review of earlier approved proposals needs to be submitted correctly.

### **Geology**

8. Different Blocks need to be demarcated in Geological Plan.
9. In the Geological cross section the proposed core bore holes needs to be demarcated. UNFC category needs to be mentioned correctly in no of Geological cross section and accordingly the category wise reserves/resources needs to be modified. In the Geological cross section the blocked resources needs to be demarcated with reasons.
10. In the Geological cross section one extra lithology namely Purple Siliceous Limestone has been projected which is not matching with that of Bore hole Lithologs and also with the Surface Geological Plan. Also at some other points the Geological Cross section is not matching with the bore hole lithologs. It has been mentioned that top 4m Purple argillaceous Limestone having CaO%>34% has been considered for estimation in 111 category but as per the Geological cross section submitted it has not been considered within the UPL.
11. Reserve/resources has been estimated for different blocks in majority of cases by cross sectional method (average sectional distance) & at places by surface area method. Uniform method should adopted for estimation of reserves/resources.
12. Cut-off grade of Limestone has been considered as CaO%-45.94% & SiO<sub>2</sub>% - 12.80% on the basis of one kiln (kiln-1) which is incorrect as it should be finalised on the basis of whole plant requirement. Besides this, the basis of fixing the cut off grade needs to be justified with proper documentation.

13. Reserves/resources needs to be estimated between cut off and threshold value prescribed for Limestone i.e CaO% > 34% and MgO < 5%.
14. Exploration needs to be proposed to explore the entire deposit upto marker bed in G1 level.
15. Incongruity has been observed in the Cross sectional area considered for estimation of reserves/resources under UNFC category and also under different level of Geological exploration.
16. Average grade of limestone needs to be submitted instead of range in the table provided for UNFC classification of reserves/resources.
17. Feasibility study report should be prepared as per annexure-V of MEMC rules, 2015.
18. UNFC justification to be submitted for different level of Geological axis, Feasibility axis and Economic axis. In the Feasibility axis justification of the EC, CFE & CFO details like no date and capacity needs to be mentioned.
19. Justification needs to be submitted in respect of the resources blocked under different heads.
20. The area explored under different level needs to be accessed correctly and to be submitted and demarcated in bold line. Further the Block wise area explored under different level of exploration needs to be submitted and to be demarcated in bold line.
21. Reason for increase in reserves and remaining resources needs to be mentioned.

### **Mining**

22. The existing mining pit details as submitted in table-64 should be submitted with major corner co-ordinates, top mRL and bottom mRL.
23. Production proposal needs to be submitted only for the 5 year period 2020-21 to 2024-25 and the Insitu tentative excavation needs to be submitted year wise / block wise/pit wise.
24. In the Conceptual chapter fencing of mining pits needs to be proposed towards the Reserve Forest side and also all around the mining pit. 5 year block wise plantation all along the 7.5m safety zone needs to be proposed.
25. Each block wise longitudinal conceptual sections needs to be prepared. Conceptual sections to be prepared for Block A, B & C. Except 5 year block wise production area for others heads the proposals have not been demarcated in the conceptual plan. The conceptual chapter should be attended for each head.

### **PMCP**

26. Top soil has been proposed to be partly stored. Hence its year wise location and dimension needs to be submitted in text. Proposal needs to be submitted for protection of top soil from wash off during rainy season.
27. Proposal to plant outside the mining lease area needs to be avoided and to be proposed along the 7.5m safety zone and 50 m safety zone along both sides of the state high way. Reclamation plan and the PMCP/Financial Assurance Plan should be modified in view of comment.

28. The submission regarding area reclaimed be submitted correctly as it is partly backfilled and not fully reclaimed.

**Plan & Sections**

29. Geology demarcated in the surface plan should be avoided. In all the plans the local grid should be mentioned along with UTM grid at 400 m interval.

30. HFL line needs to be demarcated in the surface plan with respect to river Krishna and Musi.

31. In addition to Geological section in 1:2000 scale also submits the Geological section in 1:5000 scale. Further the Geological Plan and Section need to be signed by the Geologist appointed in the mine.

32. Core zone location needs to be demarcated in the Progressive Reclamation Plan along with the index.

33. All the plans and sections should be submitted as per the provision of rules 31, 32 & 34 of MCDR, 2017 and signed by the surveyor having Certificate of Competency of Survey from DGMS.

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