

Scrutiny comments on modified mining plan in respect of Coromandal Limestone Mine (602.137 ha) of M/s India Cements Limited located at Chilamkuru village, Yerraguntla Mandal, Kadapa district of Andhra Pradesh State, Date of Inspection-1st December 2019, Inspection accompanied by Sri M.Venu Gopal Reddy-Qualified Person, Sri T.S Ganesh Rao, Sri Uday Bhaskar

General and Introduction

- 1. Consent letter and certificate of Qualified Person to be submitted in original. Further work experience certificates, certificate towards educational qualification of the Qualified Person to be submitted. Certificate of the qualified person be prepared in a plain paper instead of ICL letter head.
- 2. The document should be prepared as per the format of Mining Plan in IBM Manual on Appraisal of Mining Plan-2014.And repetition needs to be avoided by giving reference.
- 3. The copy of Lease sketch to be enclosed along with the copy of lease deed.
- 4. Revised toposheet No with all the lease boundary pillar co-ordinates to be submitted in chapter 2(b).
- 5. Status of implementation of CCOM Circular no. 2/2010 be to be submitted.
- 6. Details of approved mining plan need to be submitted from the initial grant of mine.
- 7. State wise Mining Lease details of the Lessee to be submitted in tabular form.
- 8. The reason for modification of the mining plan to be submitted at chapter 3.6. The reason for modification should be justified properly highlighting the existing and proposed augmentation of clinker plant and cement plant capacity and linked Limestone production capacity from the mine. Details to be submitted in tabular form.
- 9. The point where the bench mark has been established needs to be submitted in text and demarcated in the plan.

Review of Mining Plan

- 10. Review of earlier approved PMCP work to be submitted. Review of reclamation and rehabilitation to be submitted correctly.
- 11. Compliance of status of violation pointed out by IBM to be submitted by highlighting recent status of correctly.

Geology and Exploration

- 12. Category of the deposit as per MEMC Rules-2015 needs to be submitted.
- 13. The details of all the bore holes drilled in the mine to be submitted in tabular form incorporating BH No, Type of BH, Coordinates (WGS 84), collar RL, drilled depth, Year of drilling.
- 14. Geological features like strike and dip of the formation be demarcated in the Geological plan at different locations within the mine.
- 15. Atleast 10% of the total samples need to be analysed by NABL or Govt approved Laboratory and reports thereof to be submitted. In case sample has been analysed by NABL laboratory, the NABL accreditation certificate needs to be submitted.
- 16. Old lithologs of Bore holes drilled during M/s Coromandal Fertilizers Limited to be submitted. Bore hole lithologs to be signed by the Geologist. Summarized bore hole lithologs with average grade needs to be submitted.
- 17. Following parameters be considered for reserve/resources estimation and categorization Ultimate Pit slope and depth proposed, Cut-off grade and revised threshold value, Ground water table, Safety zone for railway line, cart track and roads, recovery percentage. Proper justification to be submitted for considering recovery percentage from90% to 100%.
- 18. Details of exploration carried out and resources estimated should be furnished in the tabular form as below

Details of Explored Area				
Level of Exploration	Area Explored	Resources	Grade	Unexplored area
G1 level Area(Ha)				
G2 level				
G3 level				

- 19. UNFC axis wise justification need to be submitted for all axes level wise. Further
 - a) In the Geological axis justification the scale on which Geological Mapping has been carried out and contour interval, has not been submitted in the text. Information regarding Geostatistical analysis is not relevant.
 - b) In the feasibility axis justification details of processing needs to be submitted for the existing crushing unit instead of mining machinery. The EC & CFO capacity needs to be submitted. The mining machinery details to be submitted in the mining head. The costing also needs to be submitted for mining of Limestone. The economic viability of the project

needs to be justified making backward calculation from cement costing and sale price to its proportionate sharing on Limestone mining. Market requirement related information needs to be submitted.

20. The justification for reserves estimated under 111,121 & 122, 211 ,221 and 222 category needs to be submitted in brief giving important geological factor, feasibility and economic factor.
21. Geological cross Sectional influence has not been considered proportionately in respect of those sections where roads are passing parallel to section lines. Boundary lines of blocked resources have not been demarcated in the cross section at many places.
22. Average grade for each category of the reserves/resources needs to be submitted and finally the average grade of the deposit needs to be submitted.
23. Reserves/Resources below the cut off grade and above threshold value needs to be estimated and submitted with grade.
24. Geological cross section be also submitted in 1:5000 scale and 1:2000 scale. The bore hole whose depth has been mined out, the mined out depth of the bore hole should be shown in dotted fashion in section. Proposed bore holes to be depicted in the Geological cross section. Geological cross section should corroborate to the Geological Plan.
25. No of bore holes are terminated in the ore body itself and exploration is also stopped at G2 level in the lease area (both North & South Blocks). As per the provision of rule 12(4) of MCDR, 2017 entire lease area has to be explored considering the present threshold value under G1 level by 2022, accordingly future exploration proposal should be submitted. The proposed bore hole location and scale of exploration wise area be shown in the surface geological plan. Proposed bore holes details be furnished in tabular form incorporating year of drilling ,Type of bore hole, BH No, Co-ordinates, Depth of drilling. Extent of Potential mineralised area be furnished in the text and demarcated in the Geological plan.
26. Feasibility report should be submitted as per the UNFC. In the feasibility report supply and demand analysis in respect of cement be given for future period. Economic viability of the project for proposed increase in production be justified in the feasibility report.
27. Reserves/resources of clay to be estimated.

Mining

28. Existing Mining machinery, bench parameters, blast hole parameters, bench movement, percentage of slurry and ANFO explosives used needs to be submitted in at section 2(a).
29. All the mining proposals to be proposed above the ground water table. Year wise water sump planning be submitted in text and production and development plans. Details like co-ordinates dimension to be submitted.
30. In the layout of mine working the amount of year wise advance to be made length wise, width wise, height, co-ordinates, Bench no and level, direction of movement, Volume has not been furnished. The pit road layout be shown on the plan and sections. Approach road/ramp to each pit needs to be depicted in the year wise production and development plan.
31. Bench parameters, Drilling and blasting parameters needs to be submitted.
32. Manpower requirement to be submitted to carry out the proposed mining.
33. The Year wise proposed Production and development section be prepared from all the geological cross section where mining and allied activities has been proposed.
34. Conceptual planning needs to be submitted for 5 year wise block for mining, back filling, reclamation and rehabilitation, plantation, exploration, recovery of ROM, top soil generation and stacking separately for North and South block and needs to be depicted in the conceptual plan. The land use pattern at the end of lease period needs to be submitted and it should match with the conceptual plan submitted.

The conceptual chapter needs to be recasted, drawn and projected to visualize the status of lease at the closure of mining operation as per submitted proposal and supported by suitable number of plans and sections both in transverse and longitudinal directions passing through lease boundary, pits, dumps etc showing the status of reclamation and rehabilitation work carried out, position of workings, all dumps, and afforestation at the closure, reclamation and rehabilitation work done for the area degraded because of mining operation, waste disposal etc. The status of the whole area at the end of the lease period of the mine to be shown accordingly on this plate.

35. Hydro-Geological study in respect of the mine with respect to impact on ground water resources due to mining to be proposed in 2020-21 and report thereof be submitted.

36. Specify whether crushing plant is located within the lease or outside the lease, and distance between crusher to North and south blocks to be furnished. Details of enhancement proposed in respect of crushing of Limestone be submitted.

Stacking of waste/ Mineral Reject

37. Existing top soil dump details like dimension, top and bottom RL, no. of terraces with location details needs to be submitted.
38. Substantial quantity of Limestone slabs are found stocked in the lease area in North Block, the details like dimension, quantity, quality etc. should be furnished. Proposal be submitted to withdraw sample from the stock in scientific manner by any NABL approved lab and reports thereof be submitted. The limestone slab be disposed only after getting due permission from State DMG, a commitment in this regard be submitted.
39. Further Top soil dumping along the safety zone of railway line, cart track, roads should not be done. Top soil spreading of 0.5m for plantation purpose is only allowed within the safety zone of railway line, roads is allowed only for plantation purpose and rest needs to be stacked.
40. Top soil dumping on mineralised area to be termed as temporary top soil dump. Top soil dumping to be proposed in non-mineralised area. Manner of dumping of top soil with configuration, its sequence, location, height and protective measures needs to be proposed.

PMCP

41. Environmental protection measures to be proposed for top soil stacks adjacent and along the railway track, near seasonal nala and top soil stacked along the boundary.
42. Base line information to be submitted. Last two quarters environmental monitoring reports to be submitted.
43. Environmental Monitoring locations need to be submitted in text. The core zone and buffer zone environmental stations locations need to be demarcated in Progressive Reclamation Plan and Key plan respectively.
44. Year wise proposed plantation location (co-ordinates) be submitted in the text. Plantation should be proposed only in the non mineralised area and along the 7.5m safety zone of the boundary line, 50 m safety zone of public road. Location of proposed planation of 2021-22 needs to be changed as it has been proposed outside the public road safety barrier zone.
45. Financial assurance (FA) should be assessed on the basis of updated surface plan and area put to use for mining and allied activities and FA be submitted as per the land put to use. Top soil stack and dump area under utilization and proposed to be used is submitted less in the text with comparison to the submitted PMCP plan.

Plates

46. All the road developed in the North Block needs to be demarcated, railway line safety zone be marked on the surface plan. Position of top soil dumping along railway line has not been demarcated correctly in the surface plan. The same correction be made in the Geological plan.
47. UTM and Local co-ordinates be shown in the year wise production and development plan. But in the year wise tentative production and development table co-ordinates to be submitted in UTM.
48. Conceptual plan prepared is sketchy, geological sections should be referred to know the status of lease at conceptual stage. Accordingly the same should be modified and submitted.
49. Position of newly developed road and residential plotting in near the ML in SW direction of South block be marked in the environmental plan. Details pertaining to the road and distance of residential plotting from mining pit of south block be submitted in text. If required safety zone be marked in the surface plan.
50. Reclamation plan needs to be modified in view of comment pertaining to environmental protection measures, Reclamation and rehabilitation in PMCP head.
51. 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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No. 659(72)/Lst/90/NLR.

Room No.603,
6th Floor,CGO Towers,
Kavadiguda,Secunderabad.-50008
Date: 20.12.2019.

To
Smt. Lakshmi Aparna Sreekumar,Nominated Owner,
Coromandel Limestone Mine,
The India Cements Ltd.,
Chilamkur Village,Yerraguntla Mandal,
YER Kadapa District-516 310,
Andhra Pradesh.

Sub: Submission of Modified Mining Plan in respect of Coromandel Limestone Mine of The India Cements Ltd. over an extent of 602.137 ha. Situated in Chilamkur Village, Yerraguntla Mandal, YSR Kadapa dist., A.P. submitted under Rule 17(3) of MCR, 2016.

Ref: Your letter no.Nil dated Nil received by this office on 10.10.2019.

Sir,

With reference to your letter cited above on the subject, the inspection of the mine was carried out by Shri S.K.Muduli,JMG along with Sri T.S.Ganesh Rao,Sri Uday Bhaskar,Mine Representatives and Sri M.Venugopal Reddy,QP on 01.12.2019 and found certain deficiencies which were forwarded to you and your Qualified Person on respective e.mail ids i.e., ccp_mines@indiacements.co.in.

02. You are advised to attend the deficiencies as per the annexure and resubmit the document, complete in all respects, in three bound copies along with soft copy in the form of CD (2Nos.) in this regard you are directed to submit the Financial Assurance in the form of Bank Guarantee for the area put on use for Mining and allied activities @ Rs.Three lakhs/hectare for category 'A' mines provided that the minimum amount shall be Rs.Ten lakhs as per the provision of Rule 27(1) of MCDR, 2017 at the time of submission of final copies of the document within 15 (fifteen) days from the date of issue of this letter, failing which the document will be disposed without giving any further opportunity.

03. The para-wise clarification & the manner in which the deficiencies are attended should be given while forwarding modified document.

Yours faithfully,

Sd/-

(Shailendra Kumar)
Regional Controller of Mines

Copy to Sri M.Venugopal Reddy, Qualified Person for information and necessary action.

Sd/-

(Shailendra Kumar)
Regional Controller of Mines

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Sd/-

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