

Scrutiny comments on the Modification of the Approved Mining Plan and PMCP in respect of Pedagarlpadu Limestone Mine of M/s. Chettinad Cement Corporation Ltd. over an extent of 377.68 hecets. in Pedagarlpadu and Kesanupalli villages, Dachepalli Mandal, Guntur district of Andhra Pradesh, after inspection dated 16/10/2020.

Cover Page-

- 1) The document heading needs to be mentioned as Modification of Mining Plan and instead of Review and Updation of Mining Plan period as there is a reduction in production capacity due to change in the business environment and also from design point of view regarding bench height (approved by DGMS). Modification pertaining to topography, exploration already completed during PL period and survey can not be accepted without proper justification.
- 2) Rule position under which the document has been submitted needs to be mentioned correctly.
- 3) Lease period in years to be mentioned in the covering page.
- 4) Annexure V (D) is not submitted, which needs to be annexed.

General-

- 5) The Mining Plan document should be prepared as per IBM Manual on appraisal of Mining Plan-2014.
- 6) Memo dated 17.03.2020 in respect of reduced Limestone requirement of 3.46 MTPA for the Clinker Plant needs to be submitted.
- 7) Time schedule of year wise achievement of rated capacity of the clinker plants needs to be submitted to evaluate the year wise requirement of Limestone.
- 8) Repetition to be avoided with providing references. All the annexures need to be printed in front and back side of a page.

Review-

- 9) Submit year wise review upto the date of survey and furnish reason for deviation. In the compliance status of violation as the violation is still pending the current status needs to be submitted.

Geology and Exploration-

- 10) Form-I towards Intimation of Sinking of Bore Holes needs to be annexed.
- 11) Under Chapter 1(e) of Geology and Exploration Chapter,
 - a) Summarized bore hole lithologs consisting litho units wise average grade needs to be submitted. Average grade of the entire deposit based on available exploratory data to be submitted.
 - b) Geological Plan, Geological Cross Section needs to be prepared with actual bore hole locations in the field.

- c) Original NABL Laboratory analysis reports needs to be produced at the office for verification.
- 12) Under chapter 1.0 (f) of Geology and Exploration Chapter
The Survey of India triangulation point from where the bench mark has been transferred needs to be identified in the key plan and its co-ordinates and level needs to be submitted.
- 13) Under chapter 1.0 (g) of Geology and Exploration Chapter,
a) Base plan considered for preparation of geological plan, needs to be mentioned.
b) mRLs submitted in the text and in plans are not in consonance with the levels when derived from boundary pillar levels as furnished in the DGPS surveyed lease sketch, which needs to be corrected as per the lease sketch. The surface topography be maintained as per DGPS surveyed lease sketch approved by state DMG.
c) Block wise area explored under different level of exploration and UPL needs to be demarcated in the Geological plan. Safety zone needs to be demarcated as per statute from Mines Office, Rest Shelter, ANFO Mixing Shed, Magazine and Village.
- 14) Under Chapter 1(j) of Part-A,
Feasibility study report needs to be prepared as per the parameters of UNFC field guidelines described under feasibility axis for Stratiform, Stratabound and Tabular Deposits of Regular Habit(Category-I). The UNFC axis wise justification needs to be submitted as a part of Geology.
- 15) Under Chapter 1(k) of Part-A, section wise/Bench Wise Mineral reserves/resource needs to be submitted with weighted average grade.
- 16) Under Chapter 1(l) of Part-A,
Estimation of Reserves and Resources to be furnished adhering to UNFC guidelines and considering UPL bulk density cut off grade and threshold value. Location of Bore Hole no BH-5 falling in the non leased area in Pedagarlapadu block should not be considered for reserves/resources estimation.

Mining-

- 17) Part-A Chapter 2.A.(a) Existing and Proposed Mining Method-
- a) Existing mining pit boundary co-ordinates, pit dimension with no of benches, and blasting parameters, mining machinery need to be submitted.
- b) In the Proposed method of excavation-
- i. Proposal for accounting the ore mined and despatched to be submitted and status of installation of Weigh Bridge to be submitted.
 - ii. Blasting parameters needs to be submitted in tabular form. Bench Slope and ultimate pit slope needs to be submitted. Powder factor needs to be submitted for calculation of requirement of explosives. Details of explosives Magazine and Precaution during blasting to be taken needs to be submitted.

18) Part-A Chapter 2.A. (b) year-wise tentative Excavation –

- a) As there is no waste /Mineral Reject the ROM:MR ratio should be submitted as Nil. Top soil generation should not be considered for calculation of ROM to (MR) Mineral Reject ratio.
- b) The weighted average grade of year wise proposed production need to be submitted.
- c) Before starting mining operation in Pedagarlapadu block during the year 2023-24 to 2025-26, safety barriers all along the non leased area needs to be maintained, fencing needs to be completed and boundary pillars needs to be established after survey by DGPS. Road Connectivity to be provided to the non leased area before mining in the Pedagarlapadu block.

19) Part-A Chapter 2.A. (f) Conceptual Mine planning-

- a) Five year block wise Conceptual Mine Planning as per the format of IBM manual on appraisal of Mining Plan upto the end of lease period i.e upto 23.08.2066 needs to be submitted substantiated with suitable sections. Conceptual exploration needs to be proposed to explore the entire mineralised area upto the end of mineralisation. Approach road needs to be provided from the top most to the bottom most benches. Afforestation all along the 7.5m safety zone needs to be submitted. Fencing all along the 4 nos of mining pits needs to be proposed. The five year block wise additional area required excavations, disposal of waste/top soil, reclamation and rehabilitation for each five year block period upto the end of lease period needs to be submitted in text.

Mine Drainage-

- 20) Maximum and minimum depth of workings needs not be submitted in mRL.
- 21) Quantity and quality of water likely to be encountered in the mines and the pumping arrangements and places where the mine water is finally proposed to be discharged needs to be submitted.
- 22) Year in which the proposed engineering measures to be constructed for controlling solid wash offs needs to be submitted.

Mineral Processing

- 23) The crushing plant capacity and flow sheet of crushing plant needs to be submitted.

Progressive Mine Closure Plan-

- 24) Last two quarter Environmental Monitoring reports needs to be annexed.
- 25) All the environmental protection measures like Green Belt Development, top soil dump/stack, check dam and gully plugs, retaining wall, Environmental Parameters Monitoring be discussed and related information like Locations, co-ordinates,

dimension, Quantity and Volume and Nos, frequency of sampling to be submitted in the text year wise in PMCP chapter.

- 26) Proposal for fencing the non leased area and also constructing the approach road to the non lease area in the Pedagarlapadu block needs to be submitted.

Plans & Sections-

- 27) Reclamation plans to be submitted demarcating all the proposed environmental protection measures like top soil dump/stack, check dam and gully plugs, retaining wall/bund.
- 28) All the plans and sections should be submitted as per the provision of rules 31, 32, 33 & 34 of MCDR, 2017 and signed by the surveyor having Certificate of Competency of Survey from DGMS. Environmental Plan needs to be prepared as per rule 32(5)(b) of MCDR-2017 where in the contour lines and adjacent Mining Lease boundary needs to be demarcated.
- 29) In the year wise production and development plan the bench level and movement direction needs to be demarcated.
- 30) Power lines need to be demarcated in red colour.
- 31) In the Financial assurance Plan the table towards break-up of areas in the Mining Lease for calculation of Financial Assurance needs to be submitted as per the format of IBM manual on Appraisal of Mining Plan-2014.
- 32) In the conceptual plan and section the 5 year wise mining blocks needs to be demarcated in different colour and accordingly the colour index needs to be submitted.
- 33) Weigh bridge area needs to be considered under area put to use. Further Environmental protection measures like Retaining wall/bund, Green belt area, Check Dam, Gully Check needs to be demarcated in the Reclamation and Financial Assurance Plan.
