

**SCRUTINY COMMENTS ON EXAMINATION OF DRAFT Review and updation of Mining Plan IN RESPECT OF Wadi Limestone MINE (ML.NO.2641) SITUATED IN Chittapur TALUK OF Gulbarga-DISTT OVER AN area of 471.03 Ha OF M/s ACC Ltd.**

**Cover Page:**

1. It should be written as “Review and updation of Mining Plan” under Rule 17(1) of MCR, 2016. The same to be incorporated in the entire text & plates.
2. Certificate of Qualified Person (QP) as per Universal Format of MP has not been appended. Further, end of text part of document has not been signed by the QP.
3. **Para 1(f):---** The qualification and experience certificate of QP as under Rule 15 of MCR 2016 have not been enclosed.
4. **Para 2(A):---** The period of lease valid upto 31<sup>st</sup> March 2030 may be supported by the letter of State DMG.
5. **Para 3.3:-----** The copy of form-J (notice of sinking of BHs during year 2016) submitted to IBM should be appended in support.
6. **Para 3.4:---** The recent violation pointed on 6/9/2017 has not been reviewed.

**Part-A**

**Geology & Exploration:--**

7. **Para 1(c):--** The mentioning of PL at page no. 19 may be checked and corrected as “Mine”.
8. **Para 1(e) (iii):--** 10 % check samples analyzed from NABL accredited Lab have not been appended in support.
9. **Para 1(i):---** The lateral extent of area cover under G-1, and G-3 level of exploration has not been mentioned w.r.t. total mineralized area. The non-requirement of exploration programme should be properly justified.
10. **Para 1(j):--** (i) The reserves and resources estimated in last approved SOM document dated 25/9/2013 may also be mentioned.  
(ii) Bulk density and recovery factor should be determined based on field tests conducted & confirmed. The recovery factor mentioned (94 %) has not been taken into account for assessment of reserves and resources. The recovery factor considered may be uniform with mining chapter  
(iii) Non-utilization clay to be clearly mentioned as ML also granted for clay.  
(iv) The **feasibility study report** has not been appended. Economic Evaluation chapter of the feasibility study report: Proposed operation cost should also include royalty and payment to NMET (2 % of Royalty) & DMF (30 % of royalty). The items of proposed operation cost table should be as per Annual Return (G-1) under rule 45 (5) (c) of MCDR 2017. Accordingly, economic viability may be made w.r.t. NPV & IRR.  
(v) **Resource in Plant area:** -- The resources in plant area were reflected under 331 and 333 resources in draft document. Demarcation of G-1 and G-3 should to be made as per MEMC rules 2015 in Geological Plans based on exploration output. Further, 331 resource were available in enclosed geological Sections ML-3A to ML-8A only. Therefore, re-assessment of 331 & 333 should be made based on exploration output.

**11. Para 1(k):**-- In case of A-category FM mine with production of more than 1.0 million tonnes per annum, the reserves/resources should be estimated by slice plan and cross sectional methods separately and variance is analyzed & explained.

**12. Para 1(l):**-- Necessary correction should be made in final summary table of reserve/resources (at page no.29.) with mentioning average grade of Limestone and shale as mentioned above.

#### **Mining:**--

**13. Para 2 A (a):**--Only existing method of excavation have been discussed. Proposed method for excavation may be discussed including backfilling.

**14. Para 2 A (b):**--Production and development proposal of financial year 2017-18 should not be discussed. Table of final in-situ tentative excavation table as per universal format of MP has not been incorporated.

**15. Para 2 (f):**-- (i) Life of mine has not been discussed. (ii) Existing Land use pattern and Land use pattern at conceptual period (**i.e. end of lease period**) has not been incorporated/presented in standard tabular form (iii) The quantity of generation and disposal of overburden/soil during conceptual period has not been mentioned. (iv) Afforestation, Back-filling and development of mined pit into water reservoir (with beautification) during conceptual period have not been discussed.

**16. Para 2 (ix):**--The overburden has not been considered in determining the adequacy of the HEMM.

**17. Para 3(d):**-- The details of pit area covered by water and water holding capacity has not been discussed.

**18. Para 4(a):**-- The development proposal of financial year 2017-18 should not be discussed.

**19. Para 5 (a) :**--- The details of location and capacity of cement plant have not been discussed. The broad physical & chemical specifications of cement grade limestone and shale may be discussed.

**20. Para 5 (e) :**--- 100 % utilization of ROM has not been discussed properly w.r.t. threshold value of limestone.

**21. Para 6 (a) :**--- The details of location and capacity of crushing plant have not been discussed. The mode of transportation of crushed ore materials to Plant and distance between crusher to plant etc has not been discussed.

**22. Para 8.3.1:**-- Details of part of pit matured for back-filling and development of water reservoir during mining plan period should be clearly mentioned.

**23. Para 8.3.5:**--The actual column in PMCP proposals tables may not be required. The cumulative no of plants and cost including watch & care have not been reflected properly. Further, year-wise proposals of quantity overburden wastes used for backfilling, development of mined pit into water-reservoir and proposed season-wise environmental monitoring should be properly reflected. Proposed plantation from year 2018-2023 is not matching with the PMCP proposal table. Year wise protective measures like retaining wall to be proposed in the backfilled areas in both the backfilled areas.

**24. Para 8.6:**--- (i)The grand total of column No. 5 of F.A table should be matched with ML area (ii) Present partial back-filled area in mined out pit should not be considered as fully reclaimed and rehabilitated as the area not rehabilitated completely by afforestation. Accordingly, F.A. should be re-assessed and submitted.(iii) The extent of area given in the Annual returns for the year 2016-17 is 28.169 Ha, whereas in the FA table, it is 15.6 Ha only. This should be reconciled. (iv) All the worked out area is converted into water reservoir/sumps which may be brought out under backfilled area. i.e reclaimed and rehabilitated column appropriately.

## Annexures:

25. Few photographs of corner Boundary pillars, pit, dumps, back-filled area have not been appended.
26. Affidavit from the lessee regarding that no matter is pending against the lease area on the following issues. (1) Issues relating to illegal mining with the State Government. (2) Royalty and Revision matters with the State Government. (3) Safety and Environment issues of General Public Concern. (4) Public Interest Litigation (PIL) and other Court cases etc, has not been enclosed
27. Authenticity of enclosed boreholes logs i.r.o. BHs drilled during year 2016 (after last approved SOM) with details of location & date of drilling etc should be certified by Geologist/QP . The check samples analyzed from NABL accredited Lab or Govt. Lab. have not been appended in support.
28. Latest environmental monitoring data i.r.o. noise, air and water in buffer zone by recognized Lab of MOEF/CPCB have not been enclosed. Further as stated, the ground vibration study report has not been appended.
29. Under the list of Annexure, it is expected that number of pages in each annexure must be indicated with another column.

## Plates:--

**30. Plate No 3**(Geological Plan):---(i) The lateral extent of area cover under G-1 (i.e. 331), and G-3 level (i.e. 333) of exploration in plant area for assessment may also be properly demarcated. (iii) The plan may be as per rule 32 (1) (b) of MCDR 2017. In sheet 1, the top soil dump has been indexed wrongly. The same may be corrected.

**31. Plate No 4** (Geological Cross sections):--- Different categories of reserves and resources considered for assessment should also be properly marked as easy reference.

**32. Plate No 5(Sheet 1 & 2)**(Surface plan):--On the index, it is given backfilled with some notation, for backfilled area it is different. In case of backfilled notation, it creates confusion in the demarcation in the plan. May be it can be given with different colour for easy identification. Besides, for different sumps, numbers are given like 1,2,3 ...etc, but in the index, it is given water reservoir notation, this should be correlated without differences.

**33.** Year-wise Production and developments plans should be also supported by sections. Further, few sections showing year-wise build of back-filling proposal has not been enclosed.

**34. Plate Nos 12 (Conceptual plan):**-- (i) The plan should be supported by few sections. (ii) Standard land use pattern table at conceptual period as per text should also be incorporated.

**35. Plate Nos 13 (Environment plan):**-- The plan should show year wise progress of backfilled area ,the garland drains, retaining wall of appropriate size around the backfilled area taking the contours into consideration. Necessary changes may be incorporated in the relevant text.

**36. Plate No-14** (F.A Plan):--The incorporated F.A table should be modified as per scrutiny comments at para 8.6 of text part. Also the detailed breakup of the various area given under different heads of the table may be incorporated.

**37. Reclamation Plan** has not been enclosed. This plan should properly highlighted the proposed environmental monitoring station at core-zone, proposed year-wise afforestation and other environmental protective measures, back-filling, development of mined pit in water reservoir etc during plan period.

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