

Scrutiny comments in respect of Adityana-Naviline 'D' Limestone mine, M.L/Sy.No.5/6P over an area of 12.62Ha, non-forest, A-others category, situated in Adityana –village, Ranavav-Taluka, Porbandar-Distt. of Gujarat-State for approval of Review of Mining Plan under Rule 17(2) of MCR,2016 for the five year block period & approval period of 2017-18 to 2021-22 of M/s Tata Chemicals Limited. (Expiry of Lease period 31.3.2030)

01. Introduction- (i) The past history of mine should be discussed regarding suspension of mining operations & approval of final closure plan & subsequently withdrawal of approval in text. (ii) The Final Mine closure Plan of aforesaid lease area was approved by this office vide letter no.682 (23)/CLP-98/2006-Udai Dated-09.1.2007 should be discussed in text & justified. (iii) it was observed that mine workings was done within 7.5m of lease area or outside ML. It needs clarification. (iv) The copy of ESZ notification dated 28/4/2017 regarding instant lease area falling out side Barda Wild Life Sanctuary/Jamvanti Cave distance should be submitted in the form of annexure. (v)

02. Location & Accessibility: -(i) The ownership right should be given as perform-I&IV/Govt. revenue records & should be translated & enclosed in further submission. (ii) The latitude & longitude of Boundary Pillars on lease plan is submitted duly authenticated/signed by District office, CGM without date is not acceptable. It should be corrected.

03. Review of mining plan/scheme of mining: -(i)The method of mining, period of approval of MP/MS/FMCP/lapsed period etc should be given. (ii) The FMCP of aforesaid lease area was approved by this office vide letter no.682 (23)/CLP-99/2006-Udai Dated-09.1.2007 & subsequent withdrawal, suspension of mining operations by district collector & revocation etc.,if any should be discussed in text & justified.(iii) The review chapter should be discussed about the lapsed period of scheme with justification. (iv) Net excavated area (about 8.125Ha) & total ROM production reported till date should be discussed in tabular form. (v) The ROM production, Development, exploration, plantation done etc. should be discussed with location, top & bottom RL, area/tonnage & grade etc. (vi) The ROM production was achieved in previous years should be given as per monthly/annual returns submitted to IBM/CGM only in review chapter. (vii) Para-3.4 &3.5- (a) The mine was suspended by district collector, their revocation etc, last MCDR inspection should be discussed. (b) The copy of violation, Show-cause Notice issued & compliance report should be submitted with supporting documents.

04. The feasibility report should be suitably linked to the reserves estimated with latest economic parameters and viability of operation should be concluded.

05. Geology:- (a) Geology has not been correctly described. Entire reserves estimated are incorrect. Borehole logs have not been given. Page-10, The reserves of 1.88million tonne & resources-0.279million tonne of chemical/Cement grade limestone without adequate exploratory borehole/ true potential area is not correct & acceptable as per provision of MEMC rule 2015. (b) It was observed during inspection that most of the worked out pits was not easy approach & or chemical/Cement grade limestone area was already exploited or not available in field but it was shown on Geological sections, should be discussed. (c) Re-estimates the reserves & resources as per borehole logs/true potential area in G1/G2/G3 level area & re-submitted. (d) Only 13 boreholes have been drilled till date accordingly borehole logs/ true potential area/pits litho should be shown on plan & sections instead of average hole depth taken. It needs correction. (e) The reserves and resources should be given & updated as on 01.4.2017 after depletion of production achieved up to 01/4/2017 (f) The reserves & resources should be modified by leaving the mineral blocked in statutory barriers of 7.5m/public

roads/nallah/historical places etc. (g) The cut-off grade & threshold value of limestone mineral should be discussed as per IBM circular 2009. {Limestone-Cao-34 %(min), Mgo-4 %(max.)}. The above threshold & below cutoff grade should be consider as mineral rejects, if no market is available. (h) The latest chemical analysis report of limestone (Chemical grade/Cement grade/intercalated waste/mineral rejects etc. should be submitted from an NABL accredited Laboratory only duly signed by authorized person with date & place. (i) Only single analysis report (Annexure-14) without location of mine/pit/level submitted is not enough (J) The remaining lease area should be proposed exploratory hole/pits as per MEMC rule, 2015 /IBM Manual.

06. Mining- Page-22,(a) It was observed during inspection that boundaries of lease pillars were not available/erected as per statutes. (b) The existing pit dimension with no of pits, top & bottom RL & ore & waste, surrounding contours ect should be given in tabular form. (c) Entire lease area having natural grown dense/thick vegetation should be discussed in text (d) The mine design parameter should be discussed in brief with all precautionary measures with respect to PWD road/ESZ/Historical monuments etc. (e) Proposed area/scale of production of 1.5 Lakh tone/Annum without ascertaining the true potential of area is not acceptable. (f) Mineral excavation proposed for the year 2017-18 is 28,000T. Suddenly it has been increased to 150000T in subsequent years. Such inordinate increased is not acceptable. (g) The location of year-wise production & development proposals should be modified in G1/G2 level of area only. (h) All Geological reserves/ Block able reserves calculation & Year-wise production & development calculation tables should be modified up to available true depth of potential area. (i) The 10% mining loss proposed is not justified/appropriate. It needs correction. (J) It should be discussed the employment potential as required under MMR, 1961/MCDR, 88. (k) It is not clarified whether mining machinery /manpower own purchased / hired/contract etc. (m) The statutory barrier of 50m from existing HT power line, structures not belonging to owner, public road, nallah etc. should be shown & leaving barrier as per provision of MCR, 1960. (n) The method of mining should be judicially proposed, deep hole drilling & blasting may be eliminated due to with in lease area human settlement/ historical monument etc. (o) The J/H drilling & blasting with rock breaker may be proposed.

7. Conceptual Mine Planning-Page-31-(a) The tentative conceptual mining should be discussed in text up to life of mine/lease period based upon above scrutiny. (b) The land use pattern should be mentioned as on 01.4.2017 and subsequent plan period up to 31.3.2022 and conceptual/lease period by considering five year block period. (d) Deep hole drilling & blasting may be eliminated, & J/H drilling & blasting with rock breaker may be proposed due to near Public road/historical monuments.

8. Mine Drainage- Chapter should be modified based upon above scrutiny/modified proposals.

9. Use of Minerals- The use of chemical grade /Cement grade limestone should be discussed as per buyer specification.

10. PMCP-Page-40, (a) the existing land use pattern seems to be incorrect & should be updated as on 01.4.2017 & further plan period up to 31.3.2022 in tabular form. The extent of degraded land is 8Ha but not proposed for its reclamation has been given. The year wise afforestation/plantation as per MOEF&CC, Pollution control, EC guideline should be proposed within 7.5m statutory barrier/non-mineralized zone with suitable protective measures/water arrangement should be proposed. (b) Page-41, Monitoring schedule of all environmental

components should be given with respect to permissible limits & actual parameter in tabular form. Location of different monitoring stations as per IBM/MOEF guidelines and frequency of monitoring may be discussed in text in tabular form.

11. financial assurance, Page-54, -Land use pattern should be mentioned as on 01.4.2017 and subsequent plan period up to 31.3.2022. The copy of original valid bank guarantee for extended period of five years for the A-others category mine as per provision of MCDR, 2017 should be submitted to IBM Gandhinagar Regional office. (Minimum 10Lakh)

During the pendency of approval, if there is any change in the name / address / ownership of mining lease, it should be informed promptly. All plan and section, text & tables should be modified based on above scrutiny.

16. Plan & sections: - The plan & section should be mentioned, modified & updated plates as per above scrutiny & provision of appraisal of mining plan, 2014 & Rule 32 of MCDR, 2017 in further submission.

1. **Key Plan:** Lease area should be bounded by all sides showing latitudes and longitudes of extreme boundary points. Land use status i.e. Govt. land, private land & forest land, wind rose diagram etc must be shown by different colour code.
2. **Surface Plan:** It was observed during inspection that, entire mine area is not easy approach & matching with respect to field is not possible. Reconcile & resurvey the mine area, erected the BP in field with number, latitude, longitude, RL, pit numbers, top & bottom RL etc as per guidelines. The common boundary pillars with adjoining lease area should be corrected & furnish. The natural thick vegetation, statutory barrier of electric power line, public road, nallah etc. should be shown & leaving barrier as per provision of MCR, 1960. The surface plan should be signed & certified by mine surveyor/mine manager with date & place.
3. **Surface Geological Plan & sections:** The existing/proposed exploratory core boreholes, mine pits with G1, G2, G3 level of exploration area should be judicially shown. The Litho units have not been properly shown & indexed. Plan should be updated as above scrutiny.
4. **Production & Development plan & sections:** The plan should be updated/modified based upon latest survey work & true potential area. The plan & section should be modified year wise instead of composite plan. The year wise proposal should be shown properly with benches, top & bottom RL & area etc. The protective measures, approach roads to working pits etc. should be proposed & shown properly. The year wise proposal should be modified pit wise in G1 & G2 level of exploration only. The conceptual plan should be updated & showing five year block up to life of mine.
5. **Conceptual Plan:** The pit position of mine at conceptual stage of tentative mining should be shown in conceptual plan with showing plan & block period of mining with levels as given in existing & proposed land used details.

6. **Reclamation Plan**-Existing & proposed afforestation is not shown properly in plan. Garland drain, retaining wall, rain water management and mine water discharge system is not shown in this plan.
7. **Environment Plan**: The plate is not prepared as per rule 32 of MCDR 2017 to show other details population, village boundary, types of land& features in 60m & 500 area etc.
8. **Financial Assurance Area Plan**- The break-up of existing land area & proposed for utilization in plan should be given in table & text. Land use pattern should be mentioned as on 01.4.2017 and subsequent plan period up to 31.3.2022.

Annexure:

1. All supporting documents from first grant of lease to till date, Mining plan & subsequent SOM/Modification/FMCP approval should be given in chronological order. The other relevant information/annexure/copy in Gujarati should be translated in either English or Hindi should be enclosed. (Annexure-18A,11,4)
2. The latest copy of resolution of board of directors for nominated owner/authorisation should be enclosed in further submission. The enclosed annexure-8 is dated-22.1.2009 is not acceptable.
 1. The copy of adequate experience certificate of technical person should be submitted in further submission.
 2. The latest chemical analysis report of ore/mineral rejects/waste etc. should be submitted from an NABL accredited Laboratory.
 3. The copy of coloured field photographs of present mine workings, lease boundary pillars with number, RL, latitude and longitude as specified marked on it etc. should be submitted.
 4. The copy of form J & K & field photographs of exploration if any should be submitted in further submission.
 5. Quarterly monitoring report on air, water & noise is not enclosed as per category of the mine for last 2-3 quarters duly signed with date & place.
 6. The copy of original valid BG of extended period should be submitted in the form of annexure.
 7. The further submission of document should be properly binding having sufficient strength and the plates are properly folded so that they can be accessed easily.

Date-

G.Ram
Sr.ACOM,
IBM, Gandhinagar