Scrutiny Comments on examination of Review of Mining Plan of Paruvakkudi Limestone Mine over an area of 8.09.7 Ha in Paruvakkudi Village, Sankarankovil Taluk, Tenkasi District, Tamil Nadu, submitted by M/s Ramchand Organic Chems under Rule 17(1) of MCR, 2016 & Rule 23 of MCDR, 2017

Mine Code - 38TMN15102 / Category - 'A' / Date of Inspection - 27/12/2021

Cover Page:

- 1. Mine Code mentioned on the Cover Page is wrong. Correct Mine Code shall be mentioned.
- 2. The Block Period for the document & the Plan Period for which the document has been submitted shall both be specified on the cover page.
- 3. The email address of the Qualified Person is wrong. The same shall be corrected.
- 4. The document shall strictly be printed in Portrait Orientation on A4 size sheets only & in the sequence as provided in the format. Links to the Word & Excel versions of redrafted format for Mining Plan are available on IBM website alongwith "FAQ on format of Mining Plans issued vide CCOM Circular 1/2021". The same shall be brought to use.
- 5. It was observed during the inspection that the surface plan submitted along with the document does not reflect the true surface position of the lease. The entire lease area shall be surveyed once again to reflect the actual surface position.
- 6. It shall be explained why the Review of Mining Plan & Progressive Mine Closure Plan for the block period starting 2018-19 has been submitted so late. The letter of approval of prior MP enclosed as Annexure 10 is from 1989. It shall be explained why no subsequent MP/MMP/SOM/ROMP was submitted for approval ever since.

Chapter 1: General Information

- 7. <u>Para 1.1 Lease Details</u>: The Columns for Mine Code, Type of Lease & Nature of Use have been left blank. The same shall be filled with correct information. The spellings for village name provided on the Cover Page & here are slightly different. Correct spelling shall be used throughout the document.
- 8. <u>Para 1.1.1 Initial/Subsequent Lease Grant Details</u>: The dates for Lease deed execution & registration w.r.t. the 1st extension shall be mentioned.
- 9. <u>Para 1.3.6: Owner/Nominated Owner Details</u>: It shall be specified in the Column for Name whether the named person is the Owner or the Nominated Owner. Minutes of Board Resolution in case of Nominated Owner have not been enclosed. The Cell for PAN of Owner/Nominated Owner has been left blank
- 10. Para 1.3.7: The email address of the QP furnished herein in wrong.

Chapter 2: Geology & Exploration

- 11. Para 2.1.1: Topography: The Cells for Terrain & Drainage Pattern have been left blank.
- 12. <u>Para 2.1.4.3 & 2.1.4.5</u>: The details about Lithology, Petrographic & Mineralogical Description for Major, Associated & Indicator Minerals & the Extent of Weathering/Alteration shall be discussed in these paras instead of leaving them as "Nil".
- 13. <u>Para 2.1.4.8</u>: The Deposit Type shall be specified as per MEMC Rule. The Direction of Plunge of the deposit shall also be specified.
- 14. <u>Para 2.2.1.1 Geological Mapping</u>: The "Year" in which the said Geological Mapping has been done has been left blank. The same shall be filled.
- 15. <u>Para 2.2.1.3 Ground Geophysical Survey</u>: The report of the Resistivity Survey mentioned herein shall be enclosed as a separate annexure.
- 16. Para 2.2.1.4 Geochemical Survey: The Name of the Agency is mentioned above in Para 2.2.1 as M/s. Geo Exploration and Mining Solutions, Salem, however, the chemical analysis report attached in this section is from some "Ekdant Enviro Services (P) Limited". The same shall be explained.

- 17. Para 2.2.1.11 Petrology & Mineralogical Study Report: The Petrological Study Report attached herein shall be duly signed & stamped by the person who or the agency that carried out the said study.
- 18. Para 2.2.1.13 Bulk Density Study as per M(EMC) Rules, 2016 and SOP of CGPB: It is mentioned herein that the representative sample was analysed in an in-house laboratory to find out its chemical & physical properties. However, the Chemical Analysis Report enclosed in Annexure-8 is from a third-party laboratory. Moreover, no Physical Analysis report has been annexed. Bulk Density Testing Report in compliance of the MEMC Rules, 2016 & SOP issued by the Central Geological Programming Board & Recovery Test Report shall be enclosed as separate annexures.
- 19. <u>Para 2.2.1.14 Area Covered under Exploration:</u> This section has been left totally blank. If no area has been explored till date, the entire area shall be mentioned in the column meant for "Area to be explored".
- 20. Para 2.2.2 Summary of The Previous Exploration (Before Last Plan Period): The same Ground Geophysical & Geochemical Surveys have been mentioned & the same chemical analysis report has been attached in this section as those mentioned & attached in the earlier Para 2.2.1 meant for "Summary of The Previous Exploration / During Last Plan Period" while a different agency has been named here from the one in the earlier section. Correct data shall be provided in all sections. The reports of the said Surveys mentioning all particulars shall be enclosed as separate annexure as mentioned earlier.
- 21. <u>Para 2.2.2.1</u>: The Year in which the said geological mapping was performed shall be stated in the cell meant for Year instead of writing "Year 1".
- 22. <u>Para 2.2.3</u>: The Name of the Ore Band shall be provided. The Avg. Grade shall be provided as a percentage figure.
- 23. Para 2.2.4.2 Resource Calculation: Resource Calculation shall be done as per UNFC Standards & only for Limestone. Resources shall not be shown here for "Charnockite" which shall be classified as Waste. The Grade has to be provided in all the relevant rows and as a percentage figure. In view of the re-survey of the entire topography as advised earlier, the entire resource calculation shall be performed again taking into account the updated pit profile. This para should be followed by Paras 2.2.4.3 through 2.2.4.13 & then proceed to Para 2.2.5 for Future Exploration Proposal. There is no such para numbered 2.2.6 in the format hosted at IBM website. Necessary rectifications shall be carried out everywhere. The attachment outlining the proposed boreholes shall also be annexed as a separate annexure.
- 24. Reserve Estimation as per the last approved MP/SOM/ROMP/MMP as applicable shall be annexed as a separate annexure.

Chapter 3: Mineral Beneficiation/Processing

25. Para 3.1: Only the Values for Approx. Mineral % shall be mentioned in the third column. The name of Gangue Mineral(s) & the Approx. Gangue Mineral % shall be provided in the fourth & fifth columns. The approx. mineral % age is stated to be '40', however the approx. gangue mineral % age is stated as 'Nil'. This shall be rectified. The basis for the values of Approx Mineral % & Approx. Gangue Mineral % as mentioned shall be annexed.

Chapter 4: Mining Operations

- 26. Para 4.2.1.1 & 4.2.1.2: The Pit/Dump Status for each of the pits/dumps shall be mentioned.
- 27. All references to the individual years in all the tables in this section & elsewhere throughout the document shall be changed from "Year 4", "Year 5", etc. to the actual years viz. 2021-22, 2022-23, & so on.
- 28. Paras 4.2.1.2.1 & 4.7.1: Grid Values for the location of dumps shall also be provided.
- 29. <u>Para 4.2.2.1</u>: The bench parameters for the benches in Over Burden shall also be provided.
- 30. <u>Para 4.2.2.2</u>: The entire table shall be reworked in view of the re-survey of the entire lease area taking the updated pit profile into account.

- 31. <u>Para 4.2.2.2</u>: The entire column for Overburden Volume has been left blank. The entire column for Overburden Quantity has been filled with Top Soil Quantity. The same shall be rectified & filled properly.
- 32. <u>Para 4.2.2.2</u>: The last table in this para in not as per the format issued by IBM. The total overburden volume & quantity shall be given as complete figures. The same shall be rectified & the format issued by IBM should be strictly adhered to.
- 33. <u>Para 4.3.1</u>: It is stated that the Recovery Study Report & Bulk Density Study Report have been annexed in Annexures 7 & 8 respectively. However, no such reports have been annexed. Annexures 7 & 8 respectively correspond to Feasibility Study & Chemical Analysis Reports, neither of which contain either of these.
- 34. <u>Para 4.4.3</u>: The calculation for dumper requirement should be reconciled.
- 35. <u>Para 4.4.4</u>: Two types of drills have been discussed here with both having the same serial number. The operating parameters for the second drill have not been provided.
- 36. <u>Para 4.5</u>: The Para discussing Blasting Requirement has been entirely omitted in the submitted document. This para shall be provided in full as per format. The blasting requirement is to be specified.
- 37. <u>Para 4.6</u>: Geologist shall be listed in the Managerial heading. Supervisory heading should also include a Blaster. Dumper operator requirement shall be revised in view of the re-calculated dumper requirement.
- 38. <u>Para 4.7.2</u>: The figures quoted in this table do not tally with the figures mentioned earlier in Para 4.2.2.2.
- 39. Para 4.8: It is proposed to utilize 1,97,116 m³ of "Charnockite" as a minor mineral. However, no permit for doing the same has been furnished anywhere in the document. It shall be noted here that no such disposal shall be undertaken without prior written permission from the state government in this regard. In view of this, no such proposal for utilization of any quantity of any material other than that/those specified in the lease deed shall be incorporated into this plan.

Chapter 5: Sustainable Mining

40. Absolutely no proposal for CSR activity during any of the years has been provided. Reasonable proposals commensurate with the scale of revenue generation shall be incorporated in the plan.

Chapter 6: Progressive Mine Closure Plan

- 41. No plan for reclamation & rehabilitation has been incorporated for the plan period other than fencing & garland drains despite the fact that the entire reserve is proposed to be extracted by the end of this plan period itself. An exhaustive PMCP shall be proposed featuring proposals for construction of retaining walls, water reservoir, ground-water recharging systems & afforestation as well as re-grassing over all the remaining area & not limited just to the green belt, in compliance of various statutes & court orders in this regard. Opportunities shall also be explored for development of pisciculture or recreational facilities. Efforts must be made & proposals be incorporated to spread the entire stock of top soil over adequate stretch of the lease area to facilitate proper reclamation & rehabilitation.
- 42. As per Rule 24(1) of MCDR, 2017, a Final Mine Closure Plan shall be submitted by the lessee to the competent authority for approval two years prior to the proposed closure of the mine. The same has not been done.

Chapter 7: Financial Assurance

43. Financial Assurance shall be submitted in original in compliance of Rule 27(1) of Mineral Conservation & Development (Amendment) Rules, 2021 & copies of the same shall be enclosed as annexure in the final copy of the document.

Chapter 8: Review of Previous Proposals

- 44. All references to the individual years in all the tables in this section & elsewhere throughout the document shall be changed from "Year 1", "Year 2", etc. to the actual financial years.
- 45. <u>Para 8.1:</u> The Plan Period for which this review has been provided shall be mentioned at all appropriate locations.
- 46. Paras 8.2.2.1 & 8.2.6.1: It is stated here that there was no Ore, Waste & Limestone Recovery proposed for the period 2008-09 to 2012-13. However, it is stated here that 250Ts of Ore, 150 Ts of Waste & 100 Ts of Limestone recovery have been excavated from the lease in the said period. It shall be explained how such excavations were done without any proposal. Moreover, despite actual excavation without proposal, the columns for deviation have been mentioned as "0" or "Nil" & no reason for deviation has been provided.

Annexures:

- 47. <u>Annexure 1</u>: The GO enclosed as Annexure 1 has been issued in 1997. Copy of Original GO for Initial Grant in 1985 shall also be enclosed.
- 48. <u>Annexure 2</u>: The lease deed enclosed in Annexure 2 has been executed on 13/04/1998. Copy of Original Lease Deed executed on 15.04.1985 shall also be enclosed. The address of the lessee mentioned in this annexure does not match with the same provided elsewhere in the document. The same shall be explained.
- 49. Certificate of Incorporation/Registration with the Registrar of Companies in respect of the Owning Company as mentioned on the Cover Page (i.e. M/s. Ramchand Organic Chems) shall be enclosed as annexure along with the list of Board of Directors.
- 50. Copy of Declaration of Owner/Nominated Owner or Minutes of Board Resolution in case of Nominated Owner shall be enclosed as a separate annexure.
- 51. <u>Annexure 5</u>: The Consent Letter for Qualified Person shall be digitally signed by the Owner/Nominated Owner.
- 52. <u>Annexure 5</u>: It is stated that the CCOM Circular 2/2010 will be implemented & complied with when any authorized agency is approved by the State Government. The State Government has already authorized a few agencies in this respect. However, the provisions of the Circular are yet to be implemented & complied with. An undertaking by the lessee in this respect to comply with the said circular within 180 days shall be furnished along with the final copy of the document.
- 53. <u>Annexure 6</u>: The Certificate of Recognition as Qualified Person is no longer valid. The same shall be removed accordingly. Photo ID & PAN Card of the Qualified Person shall also be enclosed.
- 54. <u>Annexure 7</u>: The Feasibility Study shall discuss in detail the total cost of mining & the total revenue anticipated for the entire life of the mine as mining at an Ore:OB ratio of 1:9.46 as stated in para 4.2.2.2 seems economically unviable. All factors shall be accounted for in this respect.
- 55. <u>Annexure 8</u>: A copy of the NABL accreditation certificate of the laboratory that conducted the chemical analysis of the representative sample shall also be enclosed.
- 56. A few photographs showing land use, environmental status of the area, shall also be annexed.
- 57. Copies of Violation letters issued by IBM and the compliance thereof shall also be annexed.
- 58. Copies of valid Environmental Clearance & Consents from State Pollution Control Board shall also be annexed as separate annexures.

Plates:

- 59. Apart from .kml/.kmz/.shp file format, soft copies of Plates No 2, 3, 5, 7, 9 & 11 shall also be submitted in .pdf file formats.
- 60. Authenticated Lease Plan of State Government shall be submitted replacing the Lease Plan submitted in Plate 1.
- 61. At least three Ground Control Points should be plotted showing respective Bearings & Distances with Boundary Pillars on the Surface Plan enclosed as Plate 2.

- 62. The surface plan, geological plan & sections submitted with this document & shown in the field do not match with the actual surface position as observed during the inspection. Entire lease area shall be surveyed once again & fresh plans & sections shall be drawn accordingly for all plates.
- 63. A Geo referenced Cadastral Plan, duly certified by the State Government shall be enclosed as Plate no 10. The Environmental Plan shall be submitted as Plate No 11.
- 64. A Financial Assurance Plan showing only the outlines of the items (in distinct colours) under the financial assurance table at the end of 5 year plan period shall also be enclosed in .pdf format, as well as, in hard copies along with the rest of the plates.