

Scrutiny comments on examination of Mining Plan with Progressive Mine Closure Plan in respect of Babarkot Limestone Area over an area of 14.2045 hectares villages- Babarkot, Taluka- Jafrabad, District –Amreli, Gujarat State submitted by Nominated Owner Sh. K.K. Maheshari for the Lessee M/s. Narmada Cement-Jafrabad Works (Unit: A Unit of M/s. UltraTech Cement Ltd) under rule 17 of MCR,2016 & 23(B)(3) of MCDR 1988 for excavation proposal from 2017-18 to 2021-22.

1. The Rule under which this MP document submitted is incorrect & need to be reviewed while submitting the final copies.
2. Reference of MCDR,1998 given in all the certificates, text report, annexure, etc. may be changed in view of recently notified MCDR,2017.
3. In text report some of the incorrect narration like depth of mineralisation is considered based on the encountered in drilled BHs, at some extent ML area mentioned as applied area, etc. have been given which need to be avoided.
4. All the supporting tables, figures, annexure furnished in the report are not properly numbered with appropriate nomenclature.
5. The Cadastral Map (Khasra plan) with superimposed lease boundary & revenue details of Survey number duly authenticated by State Government authorities not submitted for verification of land occupancy.
6. Projection marked outside the ML area shall not be considered for the approval of this document except the projections marked in Env. plan.
7. Photographs of some of the mining lease pillars indicating the details of co-ordinations, mRLs, etc may be given.
8. **Cover page**-Name of the mineral is not mentioned, Reference of Act/Rule under which lease period is mentioned is not furnished, period of proposed proposals is also not given correctly.
9. **Introduction**- some of important aspects like details of LOI issued & specific conditions stipulated in it not discussed, Production proposals as per MDPA are not furnished, justification for delay in submitting MP at LOI stage is not mentioned, other ML/PL held by the lessee are not furnished, etc.
10. **General :**
  - a. Para-1(c): Information furnished in para appears to be incorrect and need to be checked.
  - b. Position of the surface right area as on date in view of proposed excavation planning is not discussed.
11. **Chapter-2: Location and Accessibility**
  - a. Ownership/occupancy details of the land need to be reviewed especially with reference to the ownership of the land.
  - b. Land schedule in respect total Mining lease area/land may be given in concise tabulated form covering the revenue, Gauchar land & Govt. waste land, etc if any.
  - c. Methodology adopted for deriving such huge number of mining lease boundary pillars co-ordinates & its actual erectness on ground may also be discussed.
  - d. KML file of the lease is to be given in the soft copy while submitting final copies of MP.
  - e. To substantiate the nonexistence of Forest land CRZ area within the said mining lease, some satellite/google imaginaries & other evidences may also be provided.
12. **Part A: Geology & Exploration:**
  - a. As per the recently notified MCDR,2017 on dtd 27 February,2017 in the case of existing mining leases detailed exploration (G1 level) over the entire potentially mineralised area under the mining lease shall be carried out within a period of five years from the date of commencement of these rules.
  - b. Para-1(a)- Given narration reproduced as “area characterized by movement of sand due to wind. So the old pits are now filled and covered with windblown sand” appears to be incorrect & need to be checked.
  - c. The lease area is comprising of two detached blocks. It need to be described elaborately at all the places viz. physiography description, geology and reserves estimation.

- d. While describing the local geology of the area references of already excavated pit of nearby leases have been given but the same are not correlated in systematic manner.
- e. Analysis reports in respect given litho-units like windblown sand, Limestone and Deccan trap not given in the report.
- f. Under the previous exploration, it has mentioned that, CGM carried out the exploration in the Babarkot area on regional scale. But, it is not clarified that whether any BHs is drilled or not within the area in question.
- g. Under the recent exploration drilled BHs details are not supported with period of exploration carried out, individual BHs spacing (grid pattern), sample analysis, etc.
- h. It has mentioned that, there are two old pits viz OP-1 and OP-2 in the applied area but the same not supported with its co-ordinates, sample analysis, etc.
- i. Proposed exploration & period of its completion just within the first year of plan period appears to be incorrect. Further, grid pattern of individual BHs are also not furnished.
- j. Parameters discussed in estimation of Resources/Reserves are not given correctly & conflicting with given narrations. Further, plan area method is adopted for R&R estimation wherein depth of mineralization may be checked in view of actual old pit depth.
- k. Ultimate pit limits/depth considered upto 0 mRLs levels based on the nearby mining leases appears to be incorrect and same need to be reviewed.
- l. Parameters considered for categorization of R&R under different geological axis, basis for awarding final UNFC codes, etc. are not given correctly & not supporting with ground reality.
- m. Depth of the limestone being encountered in the applied area is arbitrarily mentioned as 30mts which is not having any supportive evidence.
- n. Total estimated Resources are not given in tabulated manner and straight way reached to the reserves of different UNFC categories.
- o. Surface geological Plan is prepared on scale 1:1000 but how and when & how the geological mapping of applied area carried out is not discussed.
- p. For Resources estimation of G1, G2 & G3 categories based on the mineral existence evidences from adjoining working or excavated pits are not justified in proper manner.
- q. Reserves & resources estimation furnished in the Table No-A1.13 are not given in correct manner and same may be reviewed.
- r. It should be confirmed that, the reserves under category (III), is the net mineable reserves and free from all encumbrances, especially in view of private land which is not in possession of lessee as on date.
- s. In whole chapter while estimation of R&R some of the important aspects like non addressing of mineralization exists in old pits, estimation of reserves estimated in proved category (III) in absence of any previous exploration in area, resources estimated as Feasibility Mineral Resources (211) appears to be incorrect. Hence, whole chapter need to be redrafted.

### 13. Mining:

- a. Expected excavation furnished in the Table A2.2 and figures given in CuM appears to be incorrect and same may be corrected.
- b. Total surface rights as on date with respect to proposed excavation planning for the 5 years plan period may be given suitably.
- c. Ore:OB ratio given in Table A2.2 are incorrect and same may be corrected.
- d. Page-19,20: Under proposed excavation planning bench mRLs as furnished appears to be incorrect.
- e. In proposed excavation/production planning, the ROM production proposals as per MDPA not at discussed in the chapter.
- f. Page-26,27: Under the proposed excavation planning, it is incorrectly mentioned as OB Soil instead of OB windblown sand.
- g. Proposed mining area is in close vicinity of costal belt hence ground water table play very important role in excavation planning. Hence, it need to be addressed very prominently in the

chapter. CRZ area also close to the mine & probability of ingress of saline water in the voids may also be discussed.

- h. Overburden windblown sand excavation given in proposed excavation planning as 1.0m depth year wise need to checked.
- i. Under the list of machineries proposed, detailed calculation of required machineries are not given in systematic and in tabulated format.
- j. Page-34: Incorrect narrations have been given under the heading “Exploration” which need to be corrected.
- k. Narration given on some of the aspects in conceptual mine planning appears to be incorrect like no waste encountered in the area, at some extent, it is mentioned that backfilling is not required, Justification for ultimate depth/UPL not given, expected quantity of OB to be exploited at conceptual stage not furnished, etc.
- l. Proposal for mining of common boundary barrier is also to be made in conceptual mining plan

**14. Chapter 3: Mine Drainage**

- a. Details on water table based on observations from nearby wells and water bodies have not been furnished in detailed manner. Further, piezometers readings report of the area also not enclosed.
- b. A sump of 500mx300mx60m is proposed in view of precaution towards flash floods due to heavy rains, if any. But, location of such pit is not marked on the relevant plans.

**15. Chapter 4: Stacking of Mineral Rejects/Sub-grade Material & Disposal of Waste :**

- a. Systematic handling and disposal of overburden waste windblown sand, its quality report, detailed dumping/stacking locations, judicious use of this material, etc. are not dealt precisely in the chapter.
- b. Actual chemical composition and physical specifications of Cement grade limestone are not dealt in precise manner.

**16. Chapter 7: Use of Mineral**

- a. ROM of this mine is proposed to be utilized in the existing cement plant along with ROM of other nearby leases. But, detailed blending aspects, its proportionate for blending, etc. are not addressed in detailed manner.
- b. Requirement of sweetener limestone from outsource and its quantity per annum not specified.
- c. Excavation OB windblown sand is proposed but its handling & systematic dumping at the earmarked locations is not discussed.
- d. It is wrongly mentioned that, this OB sand shall be used for plantation & green belt development purpose.
- e. Others: Under the employment potential requirement of technical and non-technical persons are not given in detailed manner as per the prescribed rules.

**17. Chapter: 8, PMCP**

- a. As mining lease area lying in close vicinity of Coastal belt, hence, disaster Management and Risk Assessment may be given in detailed manner covering all important unseen/predicted aspects.
- b. The amount of financial assurance shall be reviewed in light of recently notified MCDR,2017 on 27.02.17 & subsequent provisions are given therein.

**18. Key Plan:**

Key plan is not submitted with all the information as required under Rule 32(5)(a) of MCDR, 2017

- a. Mining Lease area not marked prominently.
- b. Directions of roads passing through the area as shown but directions are not mentioned.
- c. Env. Parameters monitoring stations at core area not marked, various land type are not marked and cement plant location not shown.
- d. Key plan is not as per MCDR,2017.

**19. Surface plan:** Surface plan is not submitted with all the information/prominent features as required under Rule 32(5)(a) of MCDR, 2017-

- a. Lat & long of the lease boundary pillars are not marked in tabulated form.
- b. Statutory barriers all along the HT line not marked.
- c. Spot mRLs of old pits have not been furnished.
- d. Land type indicating private & agriculture land not marked.
- e. Latest date of survey not mentioned.

- f. ML boundary pillars not fixed with Ground control points & Index is defective.
20. **Surface geological plan & Sections:** Geological plan is not submitted with all the information as required under Rule 32(5)(b) of MCDR, 1988.
- a. Lithology of the plan are not marked correctly, Windblown sand not shown.
  - b. Proposed exploration not marked correctly over plan & sections.
  - c. Area marked under III, 122, 211, 222, & 333 appears to be incorrect.
  - d. Strike, Dip of litho formation not marked.
  - e. Sections are incorrect as Limestone marked below the BHs closing depths, UPL not marked correctly, outside ML boundary pit configuration of adjoining MLs are not shown correctly, old pits not marked over sections, etc.
21. **Year wise working part plan**
- a. Proposed protective works have not been marked properly.
  - b. The year wise plan is not depicting with proper approach to faces, year of excavation, etc. Headings of working plans are also incorrectly mentioned on all the plans
  - c. In year wise sections projections of adjoining ML are shown which are not correct & need to be Justified.
  - d. UNFC category of R&R not marked precisely.
  - e. Year wise stacking of OB windblown not marked correctly as height of dump/stack are not express in mRLs.
  - f. Subsequent previous year of working along with proposed proposals may also be shown.
  - g. Some of the features like pit configuration of nearby adjoining existing ML pits shown on section but not marked on respective plans.
22. **Environment plan:** The plan has not been prepared incorporating all details as per rule 32(5)(b) of MCDR'2017 like
- a. Land use pattern within 60Mts & 500Mts zone are not marked distinctly.
  - b. Existing and proposed year wise plantation & other protective work are not marked
  - c. Land use, contour value 60m beyond the proposed ML area has not been prepared and all the surface features including human settlement, etc may be shown.
  - d. Pit wise water pumping station (sumps) are not marked
  - e. Monitoring stations and wind rose diagram not shown.
23. **Conceptual plan**
- a. No provision for bench wise access to lower benches has been shown in all the proposed pits at conceptual stage.
  - b. Environmental protective work like fencing at ultimate stage is not marked.
  - c. Conceptual and five year mining proposals should not be proposed within the distance from the public structures, Electric transmission line, Nallah, etc., as prescribed under MCR 1960 and Mines Act.
  - d. The Conceptual sections are inadequate in number and the important sections especially wrt public structures/HT line are missing.
  - e. Proposed backfilling area appears to be incorrect.
24. **Reclamation plan:** Para 8.3: the details of progressive mine closure plan is not depicted distinctly on plan. The year wise fencing not marked/shown distinctly, year wise plantation not marked distinctly, Environmental monitoring stations have not been shown, etc.
- a. **Financial Area Assurance Plan:** year wise area to be broken up not furnished separately, total area marked in FA table in text report under broken up must be matched with the broken up areas as marked on plan. Standard table/projections indicating areas to be considered for FA may be shown on plan in tabulated manner.
25. **Annexure:**
- a. Revenue details and land schedule is not given correctly.
  - b. Copy of performance security in view of signed MDPA agreement with the State Govt. may be enclosed.
  - c. Analysis report of OB windblown sand is not enclosed.
  - d. In-house piezometer monitoring reports are not enclosed.
  - e. Feasibility report: the report should be modified in light of the above scrutiny comments.

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