# UMRANGSHU LIMESTONE MINE/ MINING PLAN INSPECTION REPORT INSPECTED BY: SK MOHAPATRA

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# TEXT

Mining plan to be prepared strictly as per the prescribed format given in "IBM manual for appraisal of Mining Plan – 2014". The cover page should be re-cast as per the prescribed format given in the above manual. All the consents/ certificates enclosed needs to be as per the format given & in original.

2.0 In the present submitted document, even some of the chapters viz. stacking of mineral rejects/ sub grade material and disposal of waste alongwith chapters on use of mineral

and processing of ROM have not been given.

3.0 In the introduction chapter a brief history of the mining lease to be given depicting all the statutory clearances/ court cases etc. with documentary evidence from the grant of the mining lease to as on date in chronological order alongwith utilization/end use of the minerals extracted from the mining lease.

4.0 Chapter 2 of the text document has been submitted under a caption, "Preparation of this scheme of mining with progressive mine closure plan by present consultant". The same is not as per the prescribed format and accordingly needs to be removed. Further, the system of RQP has been abolished and accordingly the word RQP to be replaced by QP, with support of necessary qualifications & experience.

5.0 Under General chapter, Point f), name of the qualified person has not been mentioned and the details viz. RQP registration number, validity of RQP etc to be removed.

- 6.0 Under details of lease area with location map (Location & accessibility) it has been mentioned that, please refer 3.2(a) above, but 3.2(a) is not showing any location map. This needs rectification. Further, it has been mentioned that, the mining lease hold area was reportedly Council Khas Land of NC Hills Autónomous Council, Haflong prior to allotment to UCL. But, no documentary evidence supporting the same has been furnished.
- 7.0 The details of approved mining plan and review of mining plan needs to be furnished in chronological order & in a tabular form with documentary evidences.
- 8.0 The review of mining plan w.r.t exploration, excavation, afforestation, reclamation & environment control measures needs to be furnished in proposal vis a vis actuals carried out in a tabular format with necessary supporting documentary evidences.
- 9.0 Summary of exploration carried out should be depicted indicating the details of location of boreholes, total depth, depth of mineralization etc in a tabular format. The document does not spell about any time bound program of exploration during the next 5 years period. A firm time bound exploration program may be given so as to delineate the limestone extent (lateral/depth wise) for the entire ML area.
- 10.0 A fresh re-assessment of the resources/ reserves needs to be carried out as per the extant provision given in 'Evidence of Mineral Contents Rules 2015'. Level wise & section wise resource/ reserve figures to be reported. A fresh categorisation of resources/ reserves as per the UNFC system shall be thereafter reported after carrying out the abové stated re-assessment of resources. NABL test report of limestone samples to be enclosed.
- 11.0 A feasibility study report shall be annexed for the UNFC categorisation of reserves/ resources.
- 12.0 Necessary supporting documents shall be provided to justify the tonnage conversion factor taken in the report.
- 13.0 The document does not depict any information of existing method of mining, which needs to be reflected. In-situ tentative excavation table needs to be furnished as per IBM manual for appraisal of Mining Plan 2014".

- 14.0 Bench height, width, bank slope angle, sectional details along which the development has been proposed, direction of advancement, top RL, bottom RL, quantity of ROM, generation of waste, stripping ratio, etc should be furnished in tabular form under each year-wise development/ production proposal. The calculation sheet to arrive at the year-wise production quantities to be furnished either in text or enclosed at Annexure.
- 15.0 A table indicating the boundary extents of the year wise proposed pit & dump should also be given in a tabular format.
- 16.0 Life of the mine to be re-defined on the basis of the re-assessed reserves and accordingly the sequence of development of the mine till it reaches its ultimate stage shall be given in the chapter on conceptual mine planning.
- 17.0 The no. of shifts & period of shifts in which the mine workings will be carried out needs to be stated.
- 18.0 The type of explosives proposed to be used for blasting & mechanism for charging / firing operations shall be described. A copy of the magazine licence to be enclosed.
- 19.0 The details of construction of check dams/ settling tanks etc shall be given along with their design in the chapter on mine drainage. The mode of disposal of surface run-off water shall be discussed indicating the schematic route showing its discharge with proposed provisions of check dams/ settling tanks/ water quality monitoring stations etc. The proposal shall also to be shown in the reclamation plan.
- 20.0 The flow sheet indicating the limestone sizing/ loading shall be given along with material balance & physical size parameters. The mechanism of weigh-ment of limestone to be reported. Quantity of water required per day for all mining activities to be reported with activity wise usages.
- 21.0 A risk assessment report along-with disaster management plan of the mining unit shall be enclosed duly approved by the management of the mine/ competent authority.
- 22.0 An emergency preparedness plan duly approved by the management of the mine/ competent authority to be enclosed.
- 23.0 No definite year wise proposal has been given for reclamation/ afforestation/ management of the mine/ existing refuse dumps. Definite & concrete proposal needs to be proposed for the above.
- 24.0 The name/ qualification/ experience of the mining engineer along with geologist appointed for the mine to be given with necessary documentation proof of their appointment.
- 25.0 The area considered as fully reclaimed / rehabilitated to be re-checked and the total land usage at the end of 5 years to be re-calculated & so on the financial assurance required.
- 26.0 All pages of the text shall be signed by the qualified person.

# ANNEXURE:

- 1.0 Copy of the lease deed (all pages).
- 2.0 Copy of the extended lease deed, if any.
- 3.0 Copy of the certificate of incorporation of the company.
- 4.0 List of the board of directors with their address/ contact no.
- 5.0 Copy of the board resolution regarding appointment of the nominated owner.
- 6.0 Proof of identity & address of the nominated owner of the mine.
- 7.0 Undertaking from each of the board of directors of the company shall be enclosed regarding their working in other organisations.
- 8.0 An undertaking from the nominated owner on commencement of mining operations only after getting the permission from all the concerned statutory bodies as well as for carrying out the proposed time bound exploration program.
- 9.0 Copy of Form-J & Form-K in respect of the existing boreholes sinked in the mine. All of the same shall be duly countersigned by the geologist of the mine.
- 10.0 Copy of the DGMS permission under rule 106(2)(b) of MMR 1961.
- 11.0 Copy of the surface water drawl permission taken from the competent authority.
- 12.0 Copy of the environment clearance letter.
- 13.0 Copy of the consent to operate from the state pollution control board.
- 14.0 Copy of the surface rights acquired.
- 15.0 Copy of the magazine licence.
- 16.0 NABL test reports on quality of limestone & tonnage conversion factor.
- 17.0 Copy of all the violations raised from IBM/ DGMS/ MoEF&CC/ SPCB with compliance status during the last period of review.
- 18.0 Colour photographs of all lease boundary pillars showing the co-ordinates.
- 19.0 Copy of the surveyor's certificate to be enclosed.
- 20.0 All pages of the annexure shall be signed by the qualified person and a list of annexure to be enclosed.

### PLATES:

#### 1.0 General:

- 1.1 The name of the nominated owner shall be invariable given in all the plates of the document.
- 1.2 The period of review of the mining plan shall also be given in all the plates of the document.
- 1.3 The key plan/ surface plan / environment plan & financial assurance plan shall invariably be signed by the surveyor of the mine along-with the mining engineer employed in the mine.
- 1.4 The geological plan/ sections shall also be duly signed by the geologist of the mine.
- 1.5 The surface plan shall also to be signed by the manager of the mine.
- 1.6 All plates shall be signed by the Qualified person.

## 2.0 Key plan:

- 2.1 Key plan shall be prepared strictly as per the extant provisions specified under rule 32(5)(a) of MCDR 2017.
- 3.0 Authenticated lease plan duly certified by the state government to be enclosed.

#### 4.0 Surface plan:

- 4.1 The surface plan should reflect the present status of the ML area. No proposals to be shown on the surface plan. The proposals shown on the surface plan to be removed.
- 4.2 The surface features as shown in the plan are not matching with the ground field conditions as observed during inspection. The same needs to be rectified.
- 4.3 The index is not matching with the things shown on the drawing.
- 4.4 The applied area need not be shown in the surface plan & all other plans. The actual ML area only needs to be shown.
- 4.5 The present surface rights acquired area within the ML to be indicated.

### 5.0 Geological plan/ sections:

- 5.1 The litho units as shown in the geological plan are not matching with ground field conditions. The geological features needs to be mapped & rectified.
- 5.2 The pit profile shall be updated in the geological plan/ sections along with the exposed geological features.
- 5.3 UPL shall be shown in the geological plan/ section.
- 5.4 UNFC shall be re-visited after carrying out the re-assessment/ feasibility study and accordingly to be shown properly in the plans/ sections.
- 5.5 Proper syntax/ code shall be used to indicate the ore continuity beneath the bottom of the drilled boreholes.
- 5.6 CaO%/ lithology shall be shown in the borehole logs in the geological sections.
- 5.7 The geological plan/ section to be signed by the geologist of the mine.
- 5.8 The ML boundary extents to be shown in all the geological sections.

# 6.0 Mine development/ production plan & sections/ dump plans & sections/ conceptual plan/ sections:

- 6.1 All the proposal of proposed excavation as shown in the plan is not matching with the sections.
- 6.2 Separate year wise development / production plan & sections to be prepared. Also, the development / production plan & sections within the proposed boundary extents needs to be shown with reference to a key plan, in a scale of 1: 1000 for better clarity.
- 6.3 UPL shall also to be shown in the plan/ sections.

- 6.4 A separate dump plan & section to be enclosed with reference to the dumping proposals as shown in the year wise development plans.
- 6.5 The extent of working as shown in the year-wise development/ production plan does not encompass the entire conceptual area as shown in the conceptual plan. Conceptual position of the dumps is also not shown. Conceptual pit & dump sections needs to be shown.

#### 7.0 Environment plan:

- 7.1 Environment plan shall be prepared strictly as per the extant provisions specified under rule 32(5)(b) of MCDR 2017.
- 7.2 All existing surface features to be shown in the environment plan.
- 7.3 Existing afforestation & reclamation carried out, if any, shall be shown.
- 7.4 Contours at larger intervals should be shown in the area falling between 60m & 500m boundary. Also the contours within the entire ML area need to be shown.

#### 8.0 Reclamation plan/ sections:

- 8.1 No reclamation plan has been submitted. The proposed plantation & reclamation shall be indicated in a tabular form indicating the proposed year of carrying out the above said activity/ area to be covered (ha.)/ no. of saplings to be planted/ species of saplings to be planted along with location of the activity. The table should be given separately for reclamation & afforestation program proposed.
- 8.2 Proposed bench / dump position at the end of 5<sup>th</sup> year to be shown with points of monitoring of AAO parameters.
- 8.3 Existing bench/ dumps also to be shown in a lighter shade.
- 8.4 The water management plan showing the position of garland drains/ retaining walls/ check dams/ settling pits should be clearly indicated in this plan.
- 8.5 Proposed reclamation program for the review of mining plan period needs to be shown.

#### 9.0 Financial assurance plan:

9.1 The existing/ proposed usages under different categories shall be coded in different colours with specific boundaries and reported in index. An auto-cad drawing of the same shall be duly provided while sending the softcopy of it.