

Discrepancies observed in the Review of Mining Plan of Chikla Mine (Area-150.65 Hect.) of M/s MOIL Ltd., located in Tehsil Tumsar, Distt. Bhandara (Maharashtra), submitted under Rule 17(1) of MCR, 2016

Text and Plates:

1.0 General and Review of Mining plan:

1. PMCP is an integrated part of Mining Plan. Thus cover page should be revised accordingly and document should be mentioned submitted under Rule 17(1) of MCR'2016. Further, category of the mine should be clearly mentioned whether category A (FM) or OTFM.
2. Information under item 3.4 should be correctly mentioned regarding violation issued by IBM.
3. As per the second para on page no. 1, mining lease was granted to MOIL in 1962 and as per Section 8A of MMDR Amendment Act'2015, as the lease is non-captive, it shall expire on 31.03.2020. Further, as per Rule 3(1) of Mineral (Mining by Government Company) Rules'2015, lease already expired in 2012 but as per Act, it will remain valid till 31.03.2020. Thus all the proposals need to be confined upto 31.03.2020 till further action as per Rule 3(2) of Mineral (Mining by Government Company) Rules'2015.
4. Review for reclamation and rehabilitation activities and other environment protection and monitoring activities alongwith proposed land use and actual land use details need to be furnished.

2.0 Geology and Reserves:

1. Areas under G1/G2/G3/G4/non-mineralized area should be mentioned in a table.
2. Reporting of reserves/resources should be done giving the position of reserves/resources in the approved Mining Plan, then deducting the depletion of reserves due to production during the proposal period of the approved Mining Plan, then addition due to exploration (if any) and finally re-classification as per Mineral (Evidence of Mineral Content) Rules'2015.
3. Future exploration proposals should be made in accordance with Rule 12 of MCDR'2017.
4. As per reported reserves/resources on page no. 28, it should be clarified that whether fines and rejects are saleable because at the bottom of the table, rejects have been deduced from the total reserves and in such case why the rejects have not been considered under resources and stacked separately for future use instead of showing it as recovery loss while considering saleable reserves? If not saleable, then these need to be considered presently under resources and if saleable, then it needs to be justified by suitable blending or other proposals in the 'Use of Mineral' chapter.
5. Qualitative analysis of mineral rejects needs to be furnished.
6. Geological Cross sections: Cross sections not drawn as per the borehole logs enclosed as XI. Some major errors are:
 - i) For BM-14, 127-140 m zone has been shown as ore zone whereas it is mentioned as 'Decomposed coarse grained Muscovite Schist' in the log.
 - ii) For EM-36, ore zone as per log is 213.20-219.50 m whereas in the section, it has been shown at 207-214 m.

- iii) For EM-37, ore zone as per log is 253.50-264.65 m whereas in the section, it has been shown at 217-255 m.
- iv) Ore zone as per EM-42 is approx 29.0 m as per the log but in the section, it has been shown 42.0 m approx.
- v) Apart from these, waste dump, soil etc. have not been shown correctly.
- vi) In plate V-B dump has been shown for in-situ rock and in section V-C ore zone and Biotite gneiss have been shown with same colour.
- vii) In some boreholes shown on the sections, either thickness shown (intersection of ore zone) or level of intersection is incorrect as per the logs.

Therefore, suitable corrections are required and sections need to be re-drawn as per logs showing UNFC categories and reserves/resources (if affected) should be re-assessed.

- 7. As per Geological Plan, area from E2700 to E3300 has no boreholes. Thus considering reserves for the part needs to be suitably justified.
- 8. Blocked resources during underground mining are proposed to be extracted through opencast in the document. Thus earlier blocked resources shall now be converted into reserves. This quantum of resources converted into reserves need to be discussed.

3.0 Mining:

- 1. Details of all existing dumps should be given (as shown on the plan) alongwith type of dump-top soil/ waste/ rejects/ sub-grade & active/dead/stabilized.
- 2. Existing and proposed area for various mining activities should be shown on the Financial Assurance Area Plan distinctly.
- 3. As per the discussion during site inspection, it was understood that opencast working shall be limited to the part of underground mining area where pillars are extractable through opencast means and while extracting blocked resources of underground through opencast, recovery should not get lowered. But in the second table on page no. 29, total clean ore has been considered as 50% of the ROM and rest 50% is mineral rejects. Generation of mineral rejects has been considered as 20% in the reporting of reserves/resources then why recovery percentage has been taken as 50% here? Also, as per page no. 50, recovery from opencast
- 4. has been given as 50% and underground has been given as 80%. Why is it so? Because in such case, reserves/ resources for underground and opencast need to be assessed separately.
- 5. On page no. 30, estimated recovery mentioned is 25% in the dump handling, but in the second table, clean ore mentioned is quite low from 25%. Also, why tonnage factor considered for clean ore is merely 1.7? Further, in the first table, material post recovery of mineral has been termed as 'rejects'. Whether the material will be rejects or waste?
- 6. In the year-wise production table given on page no. 35, alongwith number of stopes, their location in chainage or co-ordinates should also be mentioned.
- 7. Extent of development, production etc. in the proposal period as well as upto conceptual period should be mentioned clearly showing year-wise levels in the text as well as relevant plates.
- 8. Conceptual Plan and sections should be drawn showing position of mine at the end of mine-life period.
- 9. Stacking for sub-grade/mineral rejects has been mentioned as-it will be stacked over existing mineralized dumps. In all there are 3 black dumps. Quantum of stacking

should be mentioned dump-wise so that material balance can be verified (as mineral from these dumps is proposed for extraction).

10. A table should be given in stacking of sub-grade mineral indicating quantum of mineral available in the dumps as on date, proposed quantum of material to be handled year-wise, proposed quantum of material recharged/dumped due to generation of sub-grade and cumulative available as on date.
11. Second table given on page no. 50 is unclear. Backfilling has not discussed but mentioned here, unit of mineral rejects is mentioned incorrect and waste storage quantity is not clear that from where it has been derived.

4.0 Progressive Mine Closure Plan:

1. Existing land use for the lease area needs to be discussed on page no. 57.
2. Details for underground water also need to be discussed alongwith surface water.
3. A water balance chart should be given mentioning daily requirement of water under various activities, source of water and amount re-circulated, if any.
4. On page no. 63 under 'Top Soil Management', it should be clarified that whether opencast workings shall not generate any top soil?
5. In the summary of proposal for item no. 8.3 given in the table on page no. 64, a column for cumulative till date should be added and information should be furnished accordingly.
6. Amount of FA should be revised as per Rule 27 of MCDR'2017 and details of existing FA should be mentioned on page no. 68.

5.0 Plates:

1. All the plates should bear the reference of the document under submission.
2. Location plan as per item 2.0 (c) of the text needs to be submitted.
3. In compliance to CCOM Circular 2/2010, Geo referenced cadastral map authenticated by state govt. in original needs to be enclosed.
4. Surface Plan: Demarcation of Forest and Non-forest land should be done on the plan.
5. In all the plans, ore body which is exposed at the surface only needs to be shown. If required, in the geological or production plan, ore body may be shown on the plan but only as dotted line.
6. Environment Plan: Environment plan should be submitted as per the provisions of Rule 32(5) (b) of MCDR'2017 showing details for 60m and 500 m radius.
7. Reclamation Plan: year-wise activities under progressive closure should be marked on the plan.
8. Financial Assurance Plan: Area put to use at the start of SOM period and area required during the 5-years period should be shown distinctly on the plates and land use table should be shown on the plate for the calculation of FA.

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