

**Scrutiny Comments on Review of mining plan with Progressive Mine Closure Plan in respect of Rampura-Agucha Lead-Zinc Mine (MLno 8/99) over an area of 1200 hectares near villages-Agucha, Kothiyani&KheraPalola, Tehsil-Hurda&Shahpura, District- Bhilwara (Rajasthan) of M/S Hindustan Zinc Ltd. Submitted under rule 17(2) of MCR,2016& 23(B) of MCDR,1988.**

1. The submitted document is review of mining plan with progressive mine closure plan. It should be submitted under rule 17(2) of MCR, 2016 and rule 23B(3) of MCDR,1988.
2. The Declaration/undertaking/certificates given by owner & certificate given by the Qualified person (whose has prepared the document) should be modified as per the new rules/ manual of mining plan.
3. Heading and sub-heading should be given as per the standard format.
4. The information required under each item of the text should be as per the guidelines. Some of the items as required in the guidelines may not be applicable, even then title of the heading/subheading should be given
5. Copy of the resolution passed by Board of directors for nomination of Sh. Sunil Duggal as nominated owner should be given.
6. Photo ID & address proof of Nominated Owner should be enclosed.
7. Copies of the qualifications & experience of the qualified person whose has prepared the plan should be enclosed.
8. Page 3, item (d)- Area of the lease is 1200 Ha. But details of only 1009.16 Ha area has been given. Details for total area in tabular form as per the standard format may be given.
9. Page 6, item 3.3(a)- proposal for exploration during 2016-17 was 9000m. The actual work done is given as 9000m but in remark column 6254m is given. Please clarify with the facts.
10. Page 7, item 3(e)- during the year 2015-16, the actual quantity of OB/waste is higher than the proposal even though in remarks column it is written that it is in line with the plan. How? Also the figure of OB given for OC & UG is not matching with the total figure. Please check & correct.
11. Page 11- the date of inspection is given as 07.10.2016 whereas date of violation is given as 24.08.2016. How?
12. Page 12, item 3.6- The present submission is the review of mining plan not the modification of mining plan. Correction should be made accordingly at every place.
13. Page 16- In Mineral Reserves/ Resource table, the G1 is given as 51.14 million tons and G2 is 52.66 million tons. Please also specify how much area has been covered under G1 level of exploration & how much is under G2 level. And what is the future plan for G2 level for converting in G-1 level within 2 years. Accordingly exploration proposals may be revised. The Bulk density and recovery factor as per Mineral Evidence Rules, 2015, may be submitted.
14. It is an existing mine,hence reserves and resources as per previous approved scheme of mining should be given first, then depletion and balance reserves may be updated. Additional/fresh estimation of reserves if any should also be submitted with details of estimation.
15. In open cast the year wise mining proposals including pit development, waste dump, top soil stacks etc. should be supported with grid pattern.
16. Similarly, in case of underground mining, the year-wiseproposals for development and production should be clearly define in terms of grid& RL and it should be clearly shown on LVS.
17. Year wise production from open pit is given in cu.m. Please also give it in tonnes.
18. Under Conceptual Plan the details of Conceptual Status of the pits/ underground mine (five yearly as well as at the end of the life of the mine) be shown along exploration, ROM excavation, conceptual pit limit, waste disposal, extent of dumping,plantation, reclamation and rehabilitation& post mining land use etc.
19. Page-38- the proposals for handling of waste/sub-grade is given only for 2 years. What about the waste/sub-grade generated for the rest of the 3 years? It should be given for plan period.
20. Similarly, proposal for year wise waste dumping is given for only 2 years. What about the rest of the period. All the Dump location of present & future proposal may be clearly specified with Lat.& Long. in plan &it should be refer in Text also.
21. The year wise proposal for plantation, construction of retaining wall around dumps and expenditure on them, Year wise proposal for the fencing/ construction of stone masonry wall around the mined out pit should be given under PMCP chapter and same should be marked on plan also.
22. The financial assurance co-terminus with the plan period in favour of Regional Controller of mines should be submitted in original and a copy may be annexed with the documents.

23. The headings and sub-headings [Volume-I(Text)] should be as per the standard format and the Annexures (List of Annexures) needs to have page numbers for easy reference. Some Annexures referred in the manual are in “English numbers & Letter” while they are presented in “Roman numerals” in the Annexures. They need to be identical.
24. The Annexure-XXVI environmental clearance certificate stipulates main parameters for regular monitoring of mining effluent discharge (Plant tailings). Recent data for supporting the regular monitoring plant tailings (Complete analysis) as per the requirement needs to be presented.
25. Page-14(Geology and exploration): The borehole chemical analysis data is presented at page 14 referring the Annexure-XXIII for certificate of analysis. However, the test certificate at Annexure-XXIII does not have any enclosures of actual analysis report for cross check. The report by Shiva Labs needs to be enclosed.
26. Page-41 –Section 9.0A, The process description is incomplete with regard to tailings product, and there is no mention of grade of feed material and concentrate, their recovery etc as per the Guideline under section 6.0 a) of the IBM-Manual on appraisal of mining plan 2014.  
The beneficiation process described does not cover the ROM from Kayad mines being processed at RA Plant. The details need to be provided.
27. The chemical and mineralogical composition of the typical feed with supporting recent certificate of analysis needs to be presented.
28. Page 42 – Section 9.0B, The annexure-21(Flow sheets Beneficiation Plant): Presented flow sheet at Annexure -XXI is only a schematic diagram with equipment parameters but do not represent material balance chart as per the requirement in terms of feed, product and their grade and recovery at each stage of processing as per the IBM guidelines. The same needs to be provided as per the guidelines.
29. Page-42-Section 9.0D, Year wise generation of quantity of tailing during the five year may be presented. The content of only Zn and Pb is presented. A table for the complete chemical analysis of typical plant tailings, including minor elements, REE and potentially toxic metals and metalloids such as As, Cd, Co,Cr, Cu,Ni and any residual free Cyanide may be provided. A detailed mineralogical composition of Tailing needs to be provided in order assess the recovery of valuable minerals being lost to tailings [From the mineral conservation point of view]
30. Page-42- Section 9.0D, Further, states the proposal for raising the tailing dam height to 74 m to accommodate all the tailings generated during the life of mine. Is there any geo-technical feasibility study conducted to raise the dam height?. The feasibility report consisting technical assessment along with risk mitigation measures for raising dam height needs to be presented.
31. Page-43-Section 9.0G, The Annexure-21A referred for water balance chart is not available in the Annexure volume.
32. Page-46-Section 11B, It is stated that, HZL regularly collects and analyze the water samples from various locations, then why the data presented is too old (Jany-07 to May-08)?. The recent analysis data may be presented.
33. Page-57-Section-11.4B. The sentence “*Therefore failure of tailing dam due to earthquake is also ruled out*” needs to be appropriately modified, since “No precedence of earthquake doesn’t necessarily mean there is no possibility of earthquake any time future” !?.

## Plans & Sections

34. The date of survey & the date of magnetic meridian is differ. Please check & correct.
  - (i) Certificate of correctness should be signed by the qualified person who has prepared the plan.
  - (ii) Key plan-The key plan incorporating tree density and all details required as per rule 28(5)(a) of MCDR has not been submitted.
  - (iii) Surface Plan- Type of lands, highest & lowest RL of the lease area has not shown. It should be clearly shown with different colour code.
  - (iv) Geological Plan & section- Area covered under G1 & G2 level of exploration should be marked on the plan.
  - (v) Conceptual plan-Details of consecutive five years period upto lease period have not been incorporated in conceptual mining plan. It should be corrected as per the text.
  - (vi) Year wise propose plan-The year wise development and production proposals should be shown with different colour code.
  - (vii) Plate 7 & 7A- the section lines marked on plate 7 is BA’ and AB’ but in plate 7A it is given as AA’ & BB’. It should be checked & corrected.

- (viii) Environment Plan- Environment plan incorporating all details required as per rule 28(5)(b) of MCDR has not been submitted.
- (ix) Financial Assurance Plan (Plate 8)- Financial Assurance plan showing only outlines of the existing working, dumps, stacks, etc. covering all the items under the financial assurance table and at the end of 5 year plan period in different colour for the purpose of computation of the areas required to be used in that period to verify the financial assurance including areas considered as reclaimed and rehabilitated. The FMCP table may also be given on this plan and correlate with features.
- (x) Plate 11A & 11C- Index is given for existing & proposed decline, but same has not been marked on the plan.
- (xi) Plate 12- Area covered under G1 & G2 level of exploration should be marked.
- (xii) LVS showing proposed development for the five year should also be submitted.
- (xiii) There are certain omissions, deficiencies in the text and plates. Some of them have been marked. The person preparing the document should ensure proper reconciliation before submitting the final copies.
- (xiv) The entire document and plans should be submitted in soft copies by e-mail in PDF format. An undertaking may also be given that the documents in hard copy & in soft copy are same.
- (xv) Each and every page should be signed by the person preparing the document.

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