# SCRUTINY OF DRAFT MODIFICATION OF MINING PLAN IN RESPECT OF BAGRU BAUXITE MINE (10.12 HA) IN VILLAGE BAGRU, DISTRICT LOHARDAGA, STATE JHARKHAND OF SHRI M.M.P SINGH SUBMITTED UNDER RULE- 15(4) OF MCR, 2016

## **TEXT**

- (1) In the cover page, it is mentioned that, the document has been submitted under Rule 15(4) of MCR, 2016 for modification of mining plan. The validity of the scheme of mining approved in the last occasion i.e on 12/06/2012 for the period from 2009-10 to 2013-14 has already completed on 31/03/2014, thereby instead of submitting modification of mining plan under Rule 15(4) of MCR, 2016, the document should be submitted for Review of Mining Plan under Rule 17(2) of Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016 alongwith Progressive Mine Closure Plan under Rule 23 of MCDR,2017. Accordingly, corresponding changes should be made in the cover page and other places of the document.
- (2) The DGPS surveyed map/report has not been submitted along with the document in compliance to CCOMs circular No.2/2010 and its addendum dated 21/09/2011 and 11/06/2014 regarding georeferenced cadastral map.
- (3) (i) In the consent letter / undertakings /certificate from the mine owner, the consent has been given for modification of mining plan under rule 15(4) of MCDR,2016. The consent should be given for preparation of Review of Mining Plan, under Rule 17(2) of MCR, 2016.
- (ii) In view of the above observation, the certificate from the person qualified to prepare the Review of Mining Plan should also be modified accordingly.

### Introduction:

- (4) A copy of the lease renewal application in Form J has been enclosed as annexure-II but the present status of the same has not been furnished, which should be incorporated in the Introduction chapter.
- (5) The copy of the approval letter of scheme of mining dated 12/06/2012 as mentioned in Introduction chapter has been enclosed in annexure-III whereas the copy of the approval letter of the mining plan dated 18.07.2008 has not been enclosed.
- (6) An application made to Jharkhand State Pollution Control Board for obtaining CTO for the period from 01.07.2012 to 30.06.2013 has been enclosed as annexure-V. The valid consent to operate (CTO) should be obtained and enclosed along with the document.
- (7) Reason for modification: The document should be submitted for Review of Mining Plan under Rule 17(2) of Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016 alongwith Progressive Mine Closure Plan under Rule 23 of MCDR,2017 for the period from 2014-15 to 2018-19. Reason for modification under Rule 15(4) of MCR, 2016 for modification of mining plan furnished under the chapter required to be changed. As the period from 2014-15 to 2016-17 has already been lapsed, mining activities during the lapse period such as production, exploration, waste handling, afforestation, reason for closure if closed etc. should be furnished for clarity.
- (8) Table no. 1:- Remarks given in respect of Narma bauxite mine has to be checked.

## Location and Accessibility:

- (9) The mobile number of the applicant furnished in the para 2.0(a) appears to be not correct, which should be checked and corrected.
- (10) Table no.2: The proposed & actual achievement status of exploration during the year 2012-13 has been furnished in table no. 2. The reasons for not achieving the proposed exploration has not been furnished.
- Table No. 3: Production proposed during scheme period and achievement does not match with data available with IBM. May be checked.

## Geology and Exploration:

- (11) Item 1.0(e)(iii):- a) Latest analysis report from NABL accredited laboratory has not been enclosed.
- b) As per the 'list of annexures' copy of latest analysis report enclosed as annexure- IX. It is observed that instead of analysis report of Bagru Bauxite mine, analysis report of Pakhar bauxite mine, Bimarla bauxite mine and Serengdag bauxite mine of M/s HINDALCO have been enclosed in annexure IX. Same are to be replaced and fresh analysis report from NABL accredited laboratory has to be enclosed. In the text it is mentioned that the analysis report enclosed as annexure XII needs to be rectified.
- c) The pit wise sample report as analysed from NABL approved laboratories have not been annexed nor the exploration results (copy) in Form J have been submitted. During inspection the dump was found consisting of morrum and other wastes but in page 24, recovery of bauxite have been stated to be 100% is not acceptable. The analysis report of dump from NABL accredited laboratory should be enclosed and discussed in the text for clarity.
- (12) Page 20: Last para may be checked and corrected.
- (13) Table no. 13: Some of the cross sectional area considered for calculation of volume of ore are not matching with the geological section which are to be corrected. In view of the above fresh estimation of the reserve has to be done.
- (14) a) 1.0(j) Table no. 11: Norms for cut of grade and threshold value should be mentioned clearly.
- b) Table no. 7 and 12: Instead of bore hole, trial pit should be mentioned.
- c) The cross sectional area considered for reserve estimation should be marked properly / coloured on the corresponding section in the plate.
- d) Calculation of reserve / resources (table no. 13) and production programme (table no. 20) subject to verification with the soft copy of AutoCAD file.
- (15) (i) Table 16: Period for which reserve has been estimated is not given.
- ii) Table 16: Code for proved mineral reserve given as '121' needs to be corrected.
- (16) Table No. 14: Basis for showing float ore in all the geological sections below the profile line is not clear. It should be clarified since no exploration in the form of trench / borehole has been carried out in the area. All the geological sections may be reconciled properly.
- (17) The balance reserve / resource available for non-forest area proposed for mining after leaving 7.5m safety zone from lease boundary and forest boundary for mining should be shown clearly and to be marked on the geological plan. The reserve accordingly be re-calculated thereafter over the reduced area accordingly.
- 18) The basis for establishing float ore zone in the geological plan without any exploratory features shown in the plan needs to be clarified.
- (19) Table No. 19: Top RL and bottom RL should be checked and corrected. The sectional reference also needs to be incorporated in the table.

### Mining:

- (20) There is proposal for production of dump ore and float ore during the period 2017-18 and 2018-19. The method of recovery of float ore has not been discussed in the chapter 2.0(A)(a).
- (21) 2.0(A)(II) Dump re-handling: There is mention about existing waste dump (692.8mx20mx10m) covering an area of 1.38656 ha. In Table no. 19 whereas under table no. 23 it is mentioned that no dumps are re-handled. Moreover proposed production of 9660 tonne from existing ore dump during 2017-18 and 2018-19 furnished in table no. 24. The exact location of the dump considered for recovery of bauxite during 2017-18 and 2018-19 are not given in the table.
- (22) 2.0(A)(e): It is mentioned that there is no waste and subgrade generated during the mining of old dump ore. Same should be explained.
- (23) The recovery of bauxite considered as 100% for the dump ore and 80% for float are of ROM. How the recovery factor for dump ore and float ore arrived at 100% and 80% respectively may be discussed in the text.
- (24) 7.0: Employment potential: Under the heading Employment Potential, a part time Mining Engineer & a part time geologist as required under Rule 55 of MCDR, 2017 has not been proposed under employment.

- (25) Financial Assurance: The financial assurance shall be furnished as per rule 27 of MCDR, 2017.
- (26) Few coloured photographs with caption for existing quarry, dump, boundary pillars, existing exploration, reclaimed area & afforestation etc. should to be submitted along with the document for more informative.

### **PLATES**

- (1) Coloured map for all the plans and sections should be submitted alongwith all the documents.
- (2) Lease plan: The lease plan submitted along with the document has not been numbered and authenticated by the competent authority of State DMG. Nature of Government land including Forest land / non- forest land etc. not shown in the map.
- (3) Surface plan: a) 7.5 m safety zone has not been shown from the forest boundary..
- (4) Plate no.-IV & IV(A): Geological plan & Section:
- a) 7.5 m safety zone has not been shown properly in some of the sections.
- b) Both ends of the section lines should be calibrated.
- c) Basis for showing float ore in all the geological sections below the profile line is not clear. It should be clarified since no exploration in the form of trench / borehole has been carried out in the area. All the geological sections may be reconciled properly.
- d) Geological Sections: Safety zone in the forest area not shown as per the plan in all the sections. Also other features such as dump, road, RL etc. are not shown in some of the sections as per the plan.

The geological sections 125N-125N',150N-150N',25S-25S',175S-175S',225S-225S',250S-250S',275S-275S', 375S-375S' are not drawn as per the plan.

- (4) Plate no. V: Year wise Development plan & Section:-
- a) Colour code not matching with the plan.
- b) Year wise Development proposal during the year 2017-18 and 2018-19 should be marked separately using colour code.
- c) 7.5 m safety zone has not been shown from the lease boundary and forest boundary in the year wise development plan and section. Also other features such as dump, road etc. not matching with the plan.

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