

**Discrepancies observed in the Mining Plan of Fuser Iron Ore Deposit (Applied Area- 72.60 Hect.) of M/s Corporate Ispat Alloys Ltd., located in Tehsil Chamorshi, Distt. Gadchiroli (Maharashtra), submitted under Rule 16(1) of MCR' 2016 inspected by the undersigned on 05.10.2016**

**1.0 Field Observations:**

1. Pits and trenches as mentioned in the document have been seen but not fully exposed due to partial filling of debris.
2. As per the field visit, area is not approachable by motorable road.

**2.0 Text**

1. PMCP is an integrated part of Mining Plan. Thus cover page should be revised accordingly as 'Mining Plan' submitted under rule 16(1) of MCR'2016 to the competent authority as per rule 13(1)(a).
2. Instead of considering reserves/resources as it is as given in the prospecting report, it should be re-assessed in accordance with the Mineral (Evidence of Mineral Content) Rules'2015 based on the exploration done in the area and available data. Accordingly production and conceptual planning should be revised and plates should be modified.
3. Feasibility study report should be submitted as per the Mineral (Evidence of Mineral Content) Rules'2015. Production proposals should be modified such that the mine-able reserves under UNFC categories 111, 121 & 122 should remain sufficient for 5 years production. Further, exploration proposals should be such that the area shall be explored in detail in a time bound manner for occurrence and depth persistency of iron ore occurring in the applied area right from 1<sup>st</sup> year onwards.
4. On page no. 19, in the expenditure incurred in prospecting operations, cost of purchase of prospecting report should be mentioned.
5. It is mentioned that the area has been explored by DGM Nagpur in field season 1960 by drilling, pitting and trenching but the data related to pitting and trenching are not furnished. The entire exploration data is to be re-casted for calculation of Reserves/Resources keeping in view the UNFC guidelines.
6. Under heading, details of exploration on page no 19. The details of location etc of boreholes are furnished but the location as mentioned is not matching with the boreholes marked on plate no 5. 3 consecutive boreholes are present in the western part of the area which are in continuity whereas the borehole plotted on the eastern side is not matching with the location marked in the prospecting report and also it is not in continuity. Therefore, reserves/resources should be estimated based on the bore hole data and analysis report for the 3 consecutive holes as mentioned above.
7. It is noticed in the document that the quantity of reserves as mentioned, in the Prospecting report of DGM Maharashtra in the year 1960. (Annexure XIII), the same are reproduced in the mining plan. It should be modified keeping in view the UNFC guidelines.
8. Details of method adopted for calculation of reserves/resources is to be discussed.
9. The estimation of the reserves/resources is to be given in tabular form which should include section line, cross section area, area of influence, Volume, B.D and the tonnage.

10. Mineral reserve/resource given on page no 21, 22, 23, 24 and 25 are not as per UNFC classification. Need modification.
11. The basis for calculation of float ore reserves is to be elaborated. The reserves given under float ore are not correct. The depth persistence of the float ore has not been mentioned.
12. It is mentioned in the prospecting report the both magnetite and Hematite are intersected in the boreholes. The reserves/resources are to be estimated separately for the both.
13. Analysis report of ore from boreholes, pits and trenches along with depth etc is to be furnished from an NABL accredited laboratory.
14. Geological map as received with the prospecting report of DGM showing location of boreholes, pits/trenches is to be enclosed.
15. The area demarcation as per UNFC codes under different category of reserves/resources is to be marked on plate no.5.
16. It is mentioned in the prospecting report enclosed that ore is massive but bulk density considered for the area is 2.58 which appears to be on lower side. Suitable corrections should be made wherever necessary.
17. Proposals need to be modified as the proposals have been given in the western part of the area which is unexplored. Eastern part of the applied area is explored through 3 consecutive boreholes. Thus proposals need to be modified accordingly.
18. With reference to field observation item no. 2, the applied area needs development for transportation etc prior to going for production phase. But as per the proposals, production has been started from the first year in full swing without proposing development work. Also in the plates, road connecting Fuser village is in the western side of the applied area and working is proposed to commence in the eastern part but no road connecting working area to transport the ore to be excavated or waste/top soil to be dumped at earmarked locations have been shown. This needs reiteration and proposals should support systematic and scientific development of the area under consideration. Therefore development to be proposed for first two years and production to be proposed from 3<sup>rd</sup> year onwards.
19. The document has been submitted under 'B' category which is not justified with respect to the nature of deposit i.e., type of rock (BHQ, gneiss and schist rocks) and mineral which are very hard in nature for which manual working is not feasible. Therefore working should be proposed under mechanized 'A' category. Further, extent of mechanization should be furnished alongwith backup calculations for requirement of man power/ machineries. Accordingly the amount of FA calculated should be modified.
20. Ultimate depth of the pit as given in 'Five year development and production plates' is 311 mRL whereas in 'Geological Plan and Sections' and 'Conceptual Sections' it has been considered as 290.5 mRL. It should be corrected and mentioned as per the present proved depth of the deposit in the area.
21. In the conceptual period, as per the enclosed plates (Geological plan and Conceptual plan), working shall extend from core iron ore zone to BHQ zone that may cause generation of waste or generation of mineral rejects in more quantum than from core iron ore zone. This should be discussed and relevant corrections should be done on page no. 35 in the quantum of mineral rejects/ waste generated during conceptual period.

22. No production to be proposed for entire lease area in the conceptual period i.e., end of mine life. The production should be proposed for five years only from the date of execution of the lease.
23. Under item 4.0 on page no. 38-39, use of mineral rejects has not been discussed. Further, grade of this mineral rejects should be indicated and an analysis report should be submitted at the time when the mine starts working.
24. On page no. 50, local people that may get benefits from the opening of the mine should be discussed alongwith employment potential for them under community development program.
25. Abandonment cost calculations and proposals under PMCP should be given in tabular form for the five year proposal period. Further, year-wise reclamation should be furnished.

### **3.0 Plates:**

1. **Lease Plan/ Khasra map/Forest Compartment Map** should be submitted which should be authenticated by competent authority in original.
2. **Surface Plan:** Forest compartment boundaries should be shown.
3. **Geological Plan** The location of boreholes no 4 as mentioned in the prospecting report ( annexure XIII) is towards the southern direction along the slope at about 110ft from the borehole no 3 , whereas on the plate its location marked is about 600m from borehole no 3, towards eastern side. Need correction at all the relevant places in the document and plates.
4. **Geological Sections** RL and total depth of bore drilled is to be given. Depth of pits /trenches is to be marked on section line. Similarly scale marked in the index is not matching with scale marked on the section line. Need correction
5. **Reclamation Plan:** Protective measures to avoid degradation of adjacent forest land due to material wash off from the proposed dumps (located near the boundary of the applied area) should be discussed in the text and shown on the plates.
6. **Conceptual Plan:** Shape and size of the pit to be shown at the end of life of mine and should be mentioned in the text.

### **4.0 General:**

1. Authorization for use of 'Prospecting report of Govt. Of Maharashtra' or a copy of invoice for purchase of the report should be enclosed.

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