

**Scrutiny Comments on draft 'Review & Updation of Mining Plan' in respect of Dharmapura Iron Ore Mine, ML No.2543 of M/s V N K Menon covering 10.31 Ha of area in Dharmapura Village, Sandur Taluk , Ballari District of Karnataka State.**

**GENERAL**

- i. Since the mining lease area is 10.00 Ha as per the lease deed & Forest clearance/9ew`12dqw , the necessary correction may be done at all places in the text, plates & Consent letter/Undertaking /Certificate from the lessee & qualified person or executed lease deed of 10.31 Ha may be enclosed.
- ii. No cells may be left blank. Either "Nil" or "Not applicable" may be furnished.
- iii. Soft copy of the Excel sheet of the format may be filled in & submitted while submitting the final copy.
- iv. If any relevant information pertaining to the 'calculation' or 'supporting information' or 'clarification' may be provided as foot note in the respective table/para.
- v. Wherever additional information or supporting document is given in Annexure , Annexure no may be specified in respective paras.

**CHAPTER-1-GENERAL INFORMATION**

1. Para- 1.1: Area under forest in Ha may be specified Under Forest area.
2. Para- 1.1.1: Lease deed execution date of the initial grant may be furnished.
3. Para 1.1.2: Since the document submitted is submitted for Review & Updation of Mining Plan, the same may be mentioned under type of document.
4. Para 1.3: Date of initial execution of the lease may be furnished under this para.
5. Para-1.3.4: The details of the permissible annual production as per the CEC should also be furnished under this Para. Also, the details of the CEC approval Letter no, date, Permissible annual production etc. to be given under this Para. The related documents to be attached as Annexure and reference to be given.
6. Para-1.3.4.4: Land acquisition details may be furnished as per the format specified.

**CHAPTER-2-GEOLOGY AND EXPLORATION**

7. Para 2.1.1: Minimum distance of stream from lease area may be furnished.
8. Para 2.1.2: (i) Clarification may be given on the road used for mineral transport which is passing through the Mining lease. (ii) Nearest port & the distance from lease boundary may be given.
9. Para 2.1.3: Regional Strtigraphy of the area may be provided as an Annexure and the Annexure number may be referred in the Text or this may also be provided by inserting table in word file.
10. 2.1.4.2: Structure: The main ore structure of the deposit may be described like banded structure, vein-like structure, the massive structure, brecciated structure, etc.
11. Para 2.1.4.3: Nature of occurrence of other lithologies along with foot wall and hanging wall rock may be described. Different type of iron ore available in the lease, their field occurrence, petrological characteristics and percentage of incidence of each type of ore may be given. Lumps and fines percentage of iron ore may also be provided.

12. Para 2.1.4.4: (i) The information of Mode of Occurrence & Controls of Mineralization iron ore in the lease area may be provided.(ii) All the material analyzing more than 45% Fe is considered as ore. The same may be corrected at all places in the text as per the latest threshold value of Iron Ore.
13. 2.1.4.6: Nature/Form of Mineral: the ratio of lumps to fines in ROM may be furnished under this para.
14. Para 2.1.4.7: Most of the bore holes have been closed in mineral. Hence vertical extent of the mineralized has not been proved. Along with the information provided, depth of the ore body may also be provided.
15. Para 2.2.1.13: Bulk density & recovery considered for Hematite, BHQ & shale/ phyllite may be supported by the test report. The same may be enclosed in annexure.
16. Para 2.2.1.7.1: The core /non-core samples information may be provided in CSV/excel file which shall normally include Five files namely (a) collar file, (b) survey file and (c) Geology log file, (d) Assay file and (e) RQD File. The file formats are as follows:

**(a) Collar file**

Hole_id*	Latitude	Longitude	Altitude	Max_depth	Hole_path (linear/angular)	Date of drilling

**(b) Survey file for drill holes**

Hole_id	Depth	Dip	Azimuth

**(c) Assay file**

radicals analysed (specify name of radical as an example given below)							
Hole_id	Depth_from	Depth_to	Fe	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	LOI	P

**(d) Geology file**

Hole_id	Depth_from	Depth_to	Lithological Description

**(e) Rock Quality Designation (RQD) File**

Hole_id	Depth_from	Depth_to	RQD%

*\*Hole ID should tally with the surface geological plan as available in the latest approved mining plan*

19. Para 2.2.2.9: The area covered of the samples collected may be furnished.
- 20.

Para 2.2.2.14: (i) Area Covered under Exploration: From the concise litho logs given in Annexure, it is observed that most of the bore holes ended in the mineralized zone (i.e. Fe is greater than 35%). Hence the area is not completely explored. The area in given G1

level may be reviewed and accordingly information may be provided.(ii) Year wise area converted to G1 from G2,G3 & G4 and percentage % in G1 area may be reviewed & corrected.

17. Para 2.2.3: (i)Details of all the ore bands with their dimensions may be furnished in this para. Further, in the table it is observed that in the radicals analysed, the information may be given in separate row for each radicals. (ii) The minimum grade % may be corrected as per the threshold value determined by IBM.(iii) Ore body Geometry and Grade : the name of radical may be specified, instead of name of the ore mineral.
18. Para 2.2.4.2: For the calculation of reserves/resources depth continuity of mineralisation may be considered limited to the depth upto which direct evidence of mineralization is established as per Minerals (Evidence of Mineral Contents) Rules, 2015.The reserves/ resources may be re-estimated and corrected at all places in the text & plates. (ii) Information of Level of exploration & grade furnished may be corrected for Iron Ore & Haematitic Siliceous ore.
19. Para 2.2.4.3 & 2.2.4.3: Only threshold value of hematitic iron ore provided. However, hematatic silicious iron ore (HSIO) also exists in the lease. The threshold value of HSIO also needs to be provided and cut off value for calculation of reserves may be specified.
20. Para 2.2.4.8: Market Assessment: The cut-off grade from this mine is mentioned as 60% Fe and the grade of ore +45% Fe will be suitably blended with higher grade ore. However, there is an ore exists between cut off grade and threshold value (i.e. between 35 to 45% of Fe ore) not taken into account in the Market assessment. If non saleable in the present Market Scenario, the iron ore between 35 to 45% Fe may be stacked separately as a Mineral Reject and the same may be proposed. The expenditure & revenue cost may be corrected as per the market condition suitably.
21. Para 2.2.4.13: The information on reserves & resources furnished as per the UNFC classification is not aligned with the section wise calculations. The same may be corrected.(ii) In this table, Reserve/ resources of Hematitic siliceous ore may also be furnished.
22. Para 2.2.5: (i) Geological mapping of the entire lease area has already been mapped in 1:2000 scale in the previous exploration. However, again the Geological mapping is proposed in future programme of exploration, the same may be deleted. (ii) Future exploration may be proposed as per comments placed at para 2.2.2.14.

### **CHAPTER-3-MINERAL BENEFICIATION/PROCESSING**

23. Para 3.1 & 3.2: The information on mineralogy of ROM Ore/Mineral & complete chemical analysis may be furnished as per the format specified.
24. Para 3.5.1: Under dry processing, screening details with their capacity make feed size etc may be furnished.
25. Para 3.9: The quantity of water required in KLD for mining & allied activities process like dust suppression, drilling, plantation, domestic purpose, drinking etc. may be given under this Para. The details regarding source of supply of water, disposal of water, extent of recycling, chemical analysis of water should also be furnished in this Para. The Water balance charts to be prepared accordingly and may be added in annexure and reference to be given under this Para. The water requirement should be within the EC & CFO permissible limits.

26. Para 3.10: Material balance chart of dry crushing & screening may be furnished along with feed size & their expected recovery.

#### **CHAPTER-4-MINING OPERATIONS**

27. Para 4.2.1.1: The area covered by pits (Ha) is not matching with the pit dimension given. The same may be corrected.
28. Para 4.2.1.2.1: (i) during the last inspection, it was observed that dump ID (ID-1) was active. The same may be corrected under dump status. (ii) Under type of dump, waste dump, BHQ dump etc may be clearly furnished.
29. Para 4.2.1.2.2: The details of all the existing temporary mineral stacks may be given as per the format.
30. Para 4.2.2.1: For the proposed year wise production & development plan year 2025-26, Plate no.5 is empty. The same may be furnished.
31. Para 4.2.2.2: (i) Distance of advancement of benches may be furnished along with the direction. (ii) The calculation of overburden quantity in tons may be verified & corrected. Stripping ratio may also be changed accordingly. (iii) The calculation of ROM quantity in tons may also be verified & corrected. (iv) Year wise, Section wise calculation of overburden & production aligned with the corrected information may be attached as annexure. (v) The recovery considered in the geological chapter para 2.2.1.13 is not matching with the recovery % considered for mining. (vi) Under location of advancement, direction of advancement has been furnished. The same may be corrected & locational coordinates may be given. (vii) From the year wise production & development plates, it is observed that part of the dump (ID3) is proposed to be handled. The same may be incorporated in the calculation & text part as well.
32. Para 4.3.2: This para may be corrected as per the comments placed under Para 4.2.2.2.
33. Para 4.6: (i) Geologist may be deployed & details of the same to be furnished under Para 4.6.1. (ii) Total no of persons engaged per day is not matching with the information furnished. The same may be corrected under para 4.6.6.
34. Para 4.7.1: (i) Year wise proposal for disposal of waste dump may be furnished including details of the proposed area, height, quantity & location as per the format. (ii) During the 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> & 5<sup>th</sup> Year OB dumping has been proposed over the mining benches. Necessary corrections may be done in the respective plates & Clarification in this regard may be submitted.
35. Para 4.7.3: Proposed minerals stack details if existing stacks are used & the details of new stack may be furnished.
36. Para 4.9: Under use of Minerals, the physical & chemical compositions may be furnished for all the grades & sizes proposed in the plan period.

#### **CHAPTER-5-SUSTAINABLE MINING**

37. Para 5.1- (i) It should be specifically mentioned under this Para ‘ Sustainable Mining and SDF implementations during the plan period will be carried out in accordance with Rule

- 35 of MCDR 2017 ”. (ii) Information on compliance of Vishaka Committee Guidelines for prevention of women harassment at work place may be furnished.
38. Para 5.2: Under cumulative work done for the proposed years, “Nil” may be mentioned.

#### **CHAPTER-6- PROGRESSIVE MINE CLOSURE PLAN**

39. Para 6.2.2.1.2: Year wise proposal of 0.3042 Ha area for water storage & recharge facility is furnished in para 5.2 (CSR Initiatives), preparation of course gravel bed may be given aligned with para 5.2.
40. Para 6.2.3.2: Year wise proposal for green belt development may be given as per the condition given in Environment Clearance.
41. Para 6.2.7: In this para year wise dump area stabilization & development details as per the format may be furnished.

#### **CHAPTER-7- FINANCIAL ASSURANCE/PERFORMANCE SURETY**

42. (i) The total land use pattern must not exceed 10.00Ha. The same may be corrected & rectified. (ii)The area under mining is not aligned with para 6.1. The same may be corrected. (iii) Year wise proposal of land use pattern at the start of plan period & additional area requirement may be verified & corrected. (iv) Revised bank guarantee as per the amended MCDR Rule 2021 may be paid after attending the above mentioned comment.

#### **CHAPTER-8- REVIEW OF PREVIOUS PROPOSALS**

43. Para 8.1.1: Review of the lease area utilisation may be furnished as per the last approved mining plan, the same may be corrected accordingly.
44. Para 8.1.2: Since the last approved document didn’t have SDF proposals, accordingly it should be mentioned “Not applicable” under this para.
45. Para 8.2.2.1: Year wise proposal & actual generation of waste & area may be furnished. The % of deviation may be given along with reasons for deviation.
46. Para 8.2.6: Year wise proposal & actual production of minerals may be furnished. The % of deviation may be given if any along with reasons for deviation.
47. Para 8.3: Since there were no proposals in the last approved plan period under Socio-Economic, accordingly under para 8.3.1, 8.3.2, 8.3.3.1, 8.3.3.2, 8.3.3.3, 8.3.3.4 & 8.3.3.5 it should be mentioned “Not applicable”.
48. Chapter 9- This chapter is applicable only for fresh grant. Hence “Not applicable “ may be furnished under all the subheadings in this chapter.

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