SCRUNITY COMMENTS ON 'DRAFT MINING PLAN' IN RESPECT OF UBBALAGUNDI IRON ORE MINE (ML NO. 995) OF M/S JSW STEEL LTD., OVER AN AREA OF 32.89 HA. SITUATED IN UBBALAGUNDI VILLAGE, SANDUR TALUK, BALLARI DISTRICT OF KARNATAKA STATE

- a. All the headings, subheadings and para nos. should be replicated as per the standard guidelines as given in "IBM Manual on Appraisal of Mining Plan 2014" and information's to be given in order.
- b. Repetitions may be avoided by giving reference to para no & page nos.
- c. Replace the word "should" by "will."
- d. Unnecessary information's may be deleted.

COVER PAGE

- 1. Mining plan including Progressive Mine Closure Plan with the Rule No. may be given.
- 2. Under Category it is to be mentioned as A (Fully Mechanised)/Opencast/ Private/Captive on the cover page.

INTRODUCTION

- 3. Ref. of the consent letter received by the applicant for submission of approved mining plan to IBM from DMG, Karnataka may be deliberated here.
- 4. Annexure nos. of the Forest clearance and Environment Clearance may be corrected.
- 5. Silent features of approved R & R plan may be removed from the introductory part and be placed in the PMCP chapter.
- 6. State wise leases already held may be given as per the format given below:

Lease	Area	Postal	Type of	Working/Non	Status of	Date of	Remarks
reference		address/Location	Mineral	working	approval	execution	
no. & date					of mining	and Date	
					plan	of expiry	

GENERAL

7. Para 1(a): In this para, the details like phone no., Fax, Mobile No and E-mail ID of the nominated owner may be given.

LOCATION & ACCESSIBILITY

8. Para 3.6: MP/RMP submitted under Rule 11 of the MCDR 2017 may be corrected.

PART – A

1. Geology & Exploration

- 9. Para 1.0 (e):
 - i. The area under G-1, G-2, G-3 and G-4 may be given in a tabular form based on the exploration carried out in the past. The same may be shown in the Geological plan and sections as well.
 - ii. The exploration carried out in the past may be summarized in a tabular column giving the year of exploration, type ,grid interval, bore hole ID Nos., their location ,collar level, depth and inclination.
- 10. Para 1.0 (i): Future exploration proposals given in the document may be aligned as per Rule 12(3) of MCDR, 2017 which requires detailed exploration (G1 level) to be carried out over the entire potentially mineralised area under the mining lease, within a period of five years from the date of opening of the mine. The future exploration proposals may be reviewed accordingly. Maximum and minimum depth of the proposed bore, type of bore hole and their respective collar levels may be indicated in Table No.1.2.
- 11.Para 1.0 (j): Table no.1.5 may be deleted along with similar information given in the chapter. Only reserve & resources as per UNFC with respect to the threshold value notified by IBM may be furnished.
- 12.Para 1.0 (k): Table no.1.6 may be deleted.
- 13.Para 1.0 (l): Information on mineable reserve estimation based on ICFRE report may be deleted.
- 14. Ratio of Lumps to fines may be discussed in brief.

2. MINING

- 15. Para 2.0(b)(I):
 - i. The total tentative excavation for the 1st year may be crosschecked.
 - ii. The bulk density taken for ore & waste may be given in Table No.2.2.
 - iii. The bulk density of ore & waste considered for calculation in Table no.2.2 is different from the bulk density mentioned in the Exploration and Geology chapter. The same may be crosschecked and verified.
 - iv. Recovery factor as mentioned in the Exploration and Geology chapter has not been considered for the sake of calculation of tentative year wise excavation plan.
 - v. In section wise calculation, intercalated waste is shown, whereas in table no.2.2 it has not been reflected. The same may be corrected.
 - vi. In the year wise development & production plan, the number of benches may be corrected as per the sections. Section line corresponding to the respective AMSL may be given for clarity.
 - vii. Table no.2.3 may be deleted as it is not necessary. Moreover the source of information of opening balance of 86, 96,000 Tons in the 1st year is not known. It is

- also evident that the dispatch is double the proposed production. Dispatch of ore from the mine should not be more than annual production limit decided by the CEC.
- viii. The total waste and ore given in table no.2.2 is not matching with the section wise plan & development of IInd year. Accordingly the stripping ratio may also be changed.
 - ix. The calculation of overburden in section line 5-5' and ore in 8-8' is not matching with the sections given in plate no.7.
 - x. From the sections, no waste is encountered in section line 8-8", however OB of 71,000 is shown.
- 16. Para 2.0(b)(II):No recovery and re handling of material from the old waste dump will be done in the plan period may be mentioned.

17. Para 2.0(f):

- i. This Para may be rewritten in brief and summary of the conceptual mine planning up to the end of lease period based on available resources and reserves, method of mining, recovery ,backfilling ,R &R envisaged and disposal of waste may be given. Few sections of the same may be enclosed as plates.
- ii. Future Exploration proposal may be deleted as this information is already given in Exploration & Geology chapter.
- 18.Para 2.0(g): It is mentioned that 0.673 MT of waste will be handled per year. The same may be corrected.
- 19. Para 3.0(d): The toe walls, gully plugs and other details in brief may be mentioned in this paragraph for arresting solid wash off.
- 20.Para 4.0(b): (i) In this para, it is to clearly state that the dumping ground is proved for absence of mineral supported by bore hole data. (ii) The OB dumping from the 3rd year onwards is over and below the old dump. On site inspection, it was felt necessary to get the old waste dump analyzed for Fe% from NABL accredited laboratory before proposing to dump and the report of the same may be attached as Annexure.
- 21.Para 4.0(c): Top RL & Bottom RL given in this the tabular column is not matching with Plate No.7.

Year wise dumping details may be enclosed in the appended table.

Year	Dump No	OB	Area in Ha	No. of	Level in MSL	Location	Slope
		Quantity		Stages	RL & Bottom	Coordinates	Angle
		proposed					

- 22. Para 5.0(e): In this para, the details of the proposed crushing and screening unit with no of units proposed may be given.
- 23. Para 6.0(a): Reference of the plate no. may be given for dynamic stacking of fines & lumps in the lease hold area. The area in Ha expected to be covered and expected quantity of lumps & fines proposed may be given in a tabular column year wise.
- 24.Para 6.0(g): Activity wise break up of the requirement of water may be given to form a water balance chart.

25.Para 8.3:

- i. Proposed specific mitigation measures may be described for reclamation & restoration of land, water quality, air & noise quality including ground vibration.
- ii. A tabular column may be inserted for monitoring the environment parameters in the core & Buffer zone with their respective locations and no of samplings proposed in core & buffer zone.
- iii. In the table of year wise a forestation, details like survival rate, area covered, species proposed to be planted & cost may be given.

PART-B

26. PLATES:`

- a) Key Map (Plate No.1): The Topo sheet No. may be given. The approach road to the mines may also be marked.
- b) Surface Plan (Plate No.3): Mineral stacked may be shown and indexed.
- c) Surface Geological Plan (Plate No.4): Area under G-1, G-2 and UPL may be shown prominently with thick lines.
- d) Geological cross sections (Plate No.5): The UPL shown in few section lines 5-5' & 6-6' is not appropriate. The same may be justified and needs to be in corporate in the text part as well.
- e) Production & Development Plan (Plate No.6A- 6E): (i) The Geological index, area under encroachment and bench mark details may be removed. (ii) Proposed green belt area is not marked on the plan. (iii) Proposed mineral stacks may be shown.
- f) Production & Development Plan (Plate No.6C): (i) The existing approach road to the mine falls under the dump area. New approach needs to shown. (ii)The proposed built up of the OB dump is over and below the old dump may be mentioned in the text part including diversion of approach road.
- g) Production & Development Plan (Plate No.6E):The colour shown for the 5th year production and development may be changed and marked properly on the plan and sections as well.
- h) Production & Development Sections (Plate No.7): (i) The UNFC code of G-1, G-2 may be marked in each of the section line. (ii) No development activity is shown in section for the 5th Year. The same may be incorporated accordingly.
- i) Reclamation Plan (Plate No.8): R & R works proposed to be carried out may be shown on year to year basis with their details. Proposed year-wise afforestation may also be shown with different colours.
- j) Environment Plan (Plate No.09): (i) The Environmental Plan may be drawn on 1:2000 scale. (ii) The ultimate land use pattern shown in the index may be shown on the plan.\
- k) Conceptual land use pattern (Plate No.10): (i) In this plate only the details pertaining to conceptual land use pattern may be shown with outlines and the activity proposed to be conceptualised may be shown. (ii) Few sections may also be given.
- l) Financial Assurance Plan (Plate No.11): (i) Only the outline may be marked for different land particulars and indexed. (ii) All the land particulars to be shown prominently in this plate.
- m) A separate plate showing the dump sections may also be given.

- **27. Annexure:** Following items are required to be annexed with the document:
 - a) The approved R & R plan prepared by ICFRE may be attached.
 - b) The letter from DMG, Karnataka with the permissible annual production of 0.340MMT with the concurrence of the CEC may be enclosed.
 - c) Signature of the applicant in the Consent letter/Undertaking /Certificate must be in original and 9.0 may be removed from the heading.
