ANNEXURE

SCRUTINY COMMENTS ON DRAFT MINING PLAN OF RAMDEV IRON ORE MINE (AUCTIONED BLOCK, M. L. NO. 2563) OF M/s MSPL LIMITED.,(PREFERRED BIDDER), (FORMERLY THE LESSEE/ COMPANY IS M/S KANHAILAL DUDHERIA, OVER AN AREA OF 30.09 HA., IN VILLAGE RAMANADURGA, SANDUR TALUK OF BALLARI-DISTRICT, IN STATE KARNATAKA. SUBMITTED FOR APPROVAL, UNDER RULE 16(1) OF MCR, 2016. RAMGAD RANGE RESERVED FOREST, CATEGORY OF THE MINE IS A-FM (FULLY MECHANIZED). CAPTIVE, FOR FIVE YEARS PERIOD.

COVER PAGE

1. The Ramdev iron ore auctioned block mining lease period & expiry date is not given.

2. The list of annexure given, which must be added with number of pages in each annexure by adding with another column for clarity. (ii). The annexure-iv, the qualification certificate is not appropriate. Original certificate may be replaced. (iii). The core bore holes logs enclosed drilled by MECL, found to be not authenticated and there is signature of the MECL authority. (iv). The photographs enclosed are not adequate, pits, dumps, stacks , etc., are required to be enclosed in color photographs along with waste dumps, stacks, infrastructures.

3. Introduction: It is given that the provisional R & R plans for the C category mine were prepared by ICFRE based on the surveyors, RQP's & other experts, this may be changed to Qualified persons.(Table no.1, sl.no. lease area is 30.09 ha in forest land, it should be given as RF-reserve forest. Sl. No.7, the method of working as mechanized mine, but it is indicated A(FM-Fully mechanized mine).

4. In table no.3, under General, the name of the applicant/ lessee is given as M/s MSPL Limited, in addition that the name of the owner should be given.

5. Para 2(a), the name of the preferred bidders is given as M/s MSPL, but who is the nominated owner for this company may be given. (ii). The name of the mine is given as Ramdev iron ore Mine, but in the cover page it is given as Mining block, instead of mine. It is expected that, in all the places a suitable name is given without any difference.

Part-A

6. Para 1(j): it is given the deposits occur as a friable iron ore at 45%Fe cut-off, and recovery of iron ore is 90% & 10% constitutes intercalated waste such as shale, BHQ etc., but how about the presence of +35%Fe siliceous ore as per the thresh hold limit of IBM not discussed. Referring to annexure-VI/ table no.10.

7. In para 2(L), under reserves/ resources, it is indicated that the mineral resources may be estimated purely based on level of exploration, with reference to the threshold value of minerals declared by IBM, if it is so, as per the table no.10, reserves/ resources are as per the cut off grade of +45% Fe only and not as per the latest threshold value of +35% Fe. The justification for not calculated/ assessed +35% Fe may be explained.

8. Para 1(L)(a), it is given recovery factor is 90%, mining loss & processing losses is 10%, here how the 10% processing loss is accounted may be briefed. In the same para how the bulk density of 3.5t/cum established and method may be dealt here.

9. Para 2A (a), the existing method of working and the prevalent situation of the number of mining pits, number of dumps., stacks, roads and other infrastructure are not described in brief. Besides, the quantity of waste/ number old benches etc., for clarity. (ii). Similarly, the proposed method, it is expected to brief on the slope of faces, direction of advancement, approach road to the faces & specification of roads, etc., to be marked. (iii). Also, the existing dumps spread parameters, height, slope protective works etc., to be marked. (iv). The bench wise, mRL wise, opening reserves, exploitation and the closing balance should be furnished for the proposed periods. (v). The type of machineries proposed for future workings, may be discussed. (vi). During the site inspection, it was discussed in depth to work from the top RL to bottom RL in a phased manner for systematic and scientific approach to exploit optimum deposits. (vii). The existing and the proposed dimension of the pit may be given for reference. (viii). The proposals drawn to work between co-ordinates E 653350 to 654100, N 1677500 to 1678350 for five years. In addition to co-ordinates, it is better to

give pit numbers, by marking the pit numbers & the pit limits.(ix). The bench height is more than the width of the bench, which must be re-conciled.

10. Para 2(b)II, it is proposed that no re-handling, if so, is there any possibility of re-handling of dumps in future for the purpose of recovery of mineral of +35 to 45%Fe & above also.

11. Para 2A©, it is given that the proposed dump will be dumped in PTD1, mainly consists of shale, phylite, clay, gabbro, BHQ & intercalated waste will be disposed, but in other para in page nos.24/25, it is mentioned that the siliceous ore, limonitic clay etc., will be dumped in the PTD1. Therefore the text paras needs to be attended with due care without any difference in para to para to bring confusion. Besides, if there is any presence of siliceous ores should be dumped separately for future use. In the light of the above remarks, the text may be attended wherever applicable.

12. para 2(d), under explosives, the powder factor for ore & waste is given as 10.5t/kg and 10.6t/kg of explosives used. The bulk density of hard ore & the waste is 3.5 & 2.5 respectively, if it is found to be with such differences, why the Powder factor almost same may be explained. (ii). Under temporary proposed dump, it is given re-handled and back filled in the

13. Para 2(f), under conceptual mining plan, the back filling is given in page no.30/33, i.e. PTD1 + Back filling =0.276 Million Cu.m, when actually the proposed back filling will be undertaken and the location may be mentioned. (ii) The quantity of generation of waste during conceptual period and their location disposal has not been discussed. (iii). Incorporated Table of Implementation Schedule of mitigation /engineering measures should be as per approved R & R plan. (iv) The standard table of existing land.(v). the PTD1 & back filling is proposing within the UPL is not appropriate proposals, should be away from the UPL.

14. Para 4, under stacking of mineral rejects/ sub grade, it is given OB waste & silicious ore/ altered BHQ & intercalated waste will be disposed on temporary dump PTD1 is not appropriate proposals, this needs to be kept separately.

15. Para 5(a), the chemical composition of processed ore is at 45% Fe cut off grade, for five years period, if it is so, how about the siliceous ore of +35%Fe, what is the effort that is going to be taken for the siliceous ores may be dealt in this chapter for future reference.

16. Para 7, it is given transportation of ore from mine to pellet plant, how the loading at railway siding will come may be explained.

17. Para 8.3.1, under mined out land, the details of reclamation / rehabilitation may be dealt in specific, what type of reclamation will be undertaken.

18. Table no.33, need to be attended and checked at serial number, 3, 6, & 12(ii).

Part-B

ANNEXURES:

19. A copy of MECL report (text part) should also be appended in support.

20. Annexure-XVII, about the mine workings photographs, which must be also with name of the mine & lessee/ previous & the present preferred bidders.

Plates:

21. Plate No.II (Key Plan): The approach road to the ML area with distance from the known place needs to be marked.

22. Surface Plan: (Plate No. III):The three Ground control points should be given in the main plate itself / plan, instead of giving separately. (ii). The existing bore holes either core drills or the RC drills need to be shown with red color in a standard notation as per the MMR 1961, (iii). The proposed bore holes for the future periods may be given in other than red color year wise separately. (iv). The boundary of pits must be demarcated suitably for reference. Mining old pits need to be shown legibly with number or names for reference. (v). The pits, dumps, stacks are must be depicted in the index/ plan as per the standard notation given in the MMR 1961.

23. Plate No -IV (Geological Plan): (i) The plan may be as per rule 32 (1) (b) of MCDR 2017. (ii). All the proposed bore holes may be given with other than red color, both in the index and in the plan & section as standard notation practice. (iii) Proposed BHs may be specified with, core bore holes/ RC drill holes, better to attend correctly, without any difference and confusions. (iv).

Ultimate pit limit in the plan and the ultimate pit slope in the sections must be attended appropriately, instead of ultimate pit limit in both the cases. (v). The geological notations used in the index in this plate and in other plates must be same without any changes/ difference to avoid confusions. (vi). In the text document in some of the places it is given siliceous ores, but in the plan/ sections what is notation or color code used to identify.(vii). The future planning for development & production must be in such a way for scientific & systematic mining will prevail.

24. Plate No V (Geological Cross sections): (i).The remarks given in the geological plan may be considered for geological sections.

25. **Plate No –VII-A** (Year-wise Production and developments Plan**):** (i). The proposal should be drawn to work from top RL to the bottom RL and the direction of advancement of faces should be depicted accordingly on the plan. (ii). The working faces shown for 1st year development & production plan without showing the approach road & exit roads from the working faces and also the waste dump faces. (iii). The approved production proposals of 0.23 million Metric tons from CEC need to be maintained for the five years period, till further changes from the CEC, New Delhi.(iv). The proposals drawn to work in two places, northern & southern end, instead why not from southern end only and if found advantage, the text and the plates may be modified. (v). The remaining four years workings should be carried out considering the 1st year development/ production plate remarks for better planning.

26. **Plate No. VII A-E** (Production section**):** This sections should be attended in line with the remarks furnished in para 2A and above production plan.

27. **Plate Nos. VIII (**Conceptual plan & sections**)**: (i). From which RL the back filling is undertaken and the method of back filling undertaken using water/ waste materials may be dealt with clarity. (ii). Besides, the plan and sections should be such that, what would be position of workings at the time of conceptual stage must be visualized and brought out accordingly. (iii). During the conceptual stage, the back filling undertaken using the waste dumps in the worked out area and in some areas bench plantations are undertaken without using waste some areas are need to be showed accordingly (iv). In the sections, plantations only shown without undertaking back filling with waste, if it is so, than the existing profile must be brought out, instead of showing original topography. (iv). If there is a chance for water reservoir, it should be undertaken and brought out accordingly. In the final conceptual stage, what is the actual profile only must be shown, not necessary to bring out the old profile of the ML area.

28. Plate No-X (Reclamation Plan): (i) Proposed environmental monitoring station at core-zone should be properly reflected. (ii). Water monitoring station at water discharge point of ML area should also be proposed. (iii) The proposed year-wise afforestation and other environmental protective measures at toe of dumps should properly highlighted in plan. (iv). Proposing back filling from 2nd five years need to be sure for exhaustion of ore body from the location selected/ proposed, without which no back filling should be commenced. (v). This plan should be prepared similar to conceptual plan/ sections, considering the back filling i.e. reclamation & rehabilitations.