

भारत सरकार GOVERNMENT OF INDIA खान मंत्रालय MINISTRY OF MINES भारतीय खान ब्यूरो INDIAN BUREAU OF MINES क्षेत्रीय खान नियंत्रक के कार्यालय OFFICE OF THE REGIONAL CONTROLLER OF MINES



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दिनांक / Date: 19.03.2021

No. MPM/A/41-ORI/BHU/2020-21

To

Seraj Yusha, Joint Managing Partner, M/s Serajuddin & Co., At/Post-Balda, P.S-Bamebari, Dist-Keonjhar, Odisha.

Sub: Modification of Mining Plan of Balda Block Iron Ore Mine over an area of 343.981 ha (As per DGPS)/335.594 ha (As per ROR) in Keonjhar district of Odisha of M/s Serajuddin & Co. submitted under Rule-17 (3) of MCR,2016.

Ref: - i) Your letter no. S&Co/324/2020-21 dated 26.02.2021 received on 08.03.2021.

- ii) This office letter of even no. dated 08.03.2021.
- iii) This office letter of even no. dated 08.03.2021 addressed to the Director of Mines, Govt. of Odisha, copy endorsed to you.

Sir,

This has reference to the letters cited above on the subject. The draft Modification of Mining Plan along with Progressive Mine Closure Plan has been examined in this office based on site inspection carried out on 18.03.2021 by Shri Ramkishan R, Sr. Assistant Controller of Mines and Shri Sudip Ranjan Mazumdar, Senior Mining Geologist. The deficiencies observed are enclosed herewith as *Annexure-I*.

You are advised to carry out the necessary modifications in the draft Modification of Mining Plan in the light of the contents vide <u>Annexure-I</u> and submit <u>three (3) firm bound and two (2) soft copies of the document text in USB Pendrive/Flashdrive in a single MS Word file (the drawing/plates should be submitted in Auto CAD compatible format and JPG format in resolution of 100x100 pixels on same USB Pendrive/Flashdrive) within 15 (fifteen) days from the date of issue of this letter for further necessary action. If the total page of annexures exceeds 50 (Fifty) then it should be submitted as separate volume. But reference of these annexures must appear in the Modification of Mining Plan document. The plates are also to be submitted in separate volume.</u>

The para-wise clarifications and the manner in which the deficiencies are attended should invariably be given while forwarding the modified copies of the Modification of Mining Plan. It may be noted that no extension of time in this regard will be entertained and the Modification of Mining Plan will be considered for rejection if not submitted within above due date. It may also be noted that if the deficiencies are not attended completely, the submission would be liable for rejection without further correspondence.

भवदीय/ yours faithfully

(HARKESH MEENA

क्षेत्रीय खान नियंत्रक / Regional Controller of Mines

Copy for kind information and necessary action to:

 Shri B. K. Acharya, Qualified Person, M/s Serajuddin & Co., At/Post-Joda, Dist-Keonjhar, Odisha.

> (HARKESH MEENA) क्षेत्रीय खान नियंत्रक / Regional Controller of Mines

Scrutiny comments on examination of Mining plan with PMCP of Balda Iron Ore Block over an area of 343.981 Ha in Keonjhar District of Odisha State of M/s Serajuddin & Co

GENERAL POINTS:

- 1. The document should be submitted as "Modification of Mining Plan" instead of "Modification of Review of Mining Plan". Need to do necessary corrections in text, plates, annexures and at all relevant places.
- The proposal should be furnished for 2021-22 to 2024-25 and the compliance of proposals for 2020-21 should be furnished in Para 3.3. Need to do necessary corrections in cover page and at all related places of text, plates etc.
- 3. In the lease deed, in Para 2.1, it is mentioned that "lease is granted to lessee for a period of 50 years commencing from the date on which the duly executed mining lease deed is registered". The date of execution is 07.07.2020 and date of registration is 08.07.2020. Accordingly, in cover page and at all relevant places, the necessary changes should be made wherever mentioned.
- 4. Sequence of paragraph and its numbering as per IBM Manual Appraisal MP 2014 has not been covered in text. All the headings as mentioned in the IBM Manual Appraisal MP 2014 should be furnished in all chapters in the text. All the text, tables and annexures to be properly indexed/ numbered/ paged and signed by qualified persons. In the list of annexures, the index with page nos has not been mentioned. Correct table reference number to be mentioned at all relevant places. All the certificates/annexures should bear dated signature. Need to do necessary corrections at all relevant places in the document.
- In the introduction chapter the information furnished about the mining lease prior to auction is not relevant and should be omitted.
- The CONSENT LETTER/ UNDERTAKING/ CERTIFICATE have not been signed by both the Joint Managing Partners as per Para 14 of Reconstituted Partnership deed dated 22 July 2019. Need to do necessary corrections at all relevant places in the document.
- 7. In Para 3.3., the review of the proposals along with compliance has not been furnished in tabulated format along with justifications for reason of deviations submitted with documentary evidences. The proposal and compliance of 2020-21 has not been reviewed. In Para 3.6, the reason for modification with justification has not been mentioned. Need to do necessary corrections.

Geology and Exploration

- 8. The copy of the Geological report submitted is not signed. In para (i) under future exploration programme, the details of earlier exploration need not be furnished. Need to do necessary corrections.
- The lease area exploration status has not been furnished. The same should be furnished in the following tabulated format in para (g). Need to do necessary corrections.

Item of information	Part of UNFC no	Remarks/Com ments including					
	Total Le						
	G1 Level	G2 Level	G3 Level	Explored found mineralized level exploration (Remarks)	and non- with of	Unexplor ed lease area	reasons for not carrying out the exploration as per UNFC norms.
	A	В	С	D		E	
Area as per level of exploration							
No. of BH Drilled							
No. of BH considered for Resource Estimation.							
Meterage Drilled							
Grid Interval							
Scale of Mapping							
Reserve estimated after abo	ove explo	ration as on c	dated :				
Remaining Resource after a	bove expl	oration as or	dated:				
Total Reserve/Resource after				d.			

- 10. All the parameters like recovery factors, bulk densities, UPL etc., considered for estimation of reserves/resources should be as per the Geological report with referring to the relevant annexures. Cutoff grade considered has not been mentioned. Need to do necessary corrections.
- 11. All the geological information furnished has to been furnished as per the Geological report approved by state government along with documentary evidences. Detailed description of geology of the lease area such as shape and size of the mineral/ore deposit, disposition various litho-units indicating structural features if any etc. has not been furnished. The summary of bore hole drills information regarding the depth of intersection of ore body i.e. depth of top of ore body intersection and floor of the ore body intersections as per bore hole drilled has not been incorporated.

- 12. In the future exploration proposal the depth of RC boreholes proposed is not adequate and should be at least 80-100m and till the end of mineralization. Further, the proposal of DTH boreholes should be replaced with core boreholes. Need to do necessary corrections in exploration proposal at all relevant places.
- 13. As per rule 31 (4) of MCDR 2017, the plans and sections have not been maintained up to date within three months in case of category 'A' mines as the in draft modification of review of mining plan submitted the date of survey is as on 30.09.2020. Need to update all plans and sections and text and do necessary corrections according to specified rule and update reserves and resources. Need to do necessary corrections.
- 14. In page 46, the information furnished in first paragraph is incorrect and should be corrected. The reserve and resource should be updated after complying the scrutiny point no. 12. The revised estimation of reserves and resources should be based on the updated geological plans and sections which were submitted along with the Geological Report. The production achieved by new lessee after 01.04.2020 till the date of survey (refer. Scrutiny point 12), should also be depleted. Need to recheck calculation and do necessary corrections at all relevant places in text/tables etc.
- 15. In the mineral block summary the exploration status is G1 and G2. Further, G1 level of exploration has been proposed by lessee over entire area under mining lease as per rule 22 of Mineral (Auction) Rules, 2015 and prefeasibility report has been submitted by the lessee. Hence, the UNFC codes furnished are incorrect. The reserve and resource under G1 level of exploration should be categorized as "121" and "221" respectively and under G2 level of exploration as "122" and "222" respectively. Accordingly, the UNFC codes for reserves and resources should be rechecked and modified at all relevant places in the document. Need to do necessary corrections.
- 16. Justification of UNFC codes as per UNFC guidelines has not been furnished. Justification for recovery factor considered for ore and mineral reject part of ROM along with bulk density test reports have not been submitted. Need to do necessary correction.
- 17. The detail calculation of section wise reserves and resources by cross sectional method of estimation for different UNFC codes for iron ore have not been furnished. The estimation should be separate for ore and mineral reject. The estimated reserve and resource should match with the total resources reported in Geological report less the production by previous lessee during the period 01.08.2019 to 31.03.2020 and by current lessee, if any. Need to recheck and do necessary corrections.
- 18. The final presentation of reserve and resources as on date of survey (refer. Scrutiny point 12) should be updated. The date of estimation should be the date of survey. Accordingly, life of mine to be recalculated. Need to do necessary correction and furnish required information.

MINING

- 19. The year wise proposed production quantities beyond first two years in the draft document submitted do not satisfy the conditions as mentioned in Schedule-D of signed MDPA. Accordingly necessary changes in in-situ excavation production proposal in text and development plan and sections should be modified along with necessary modifications at relevant places of the document and plates wherever necessary. Need to do necessary corrections.
- 20. Justification for site selection for mining during the proposed plan period has not been furnished. Proposed method of mining has not been furnished in light of development proposal i.e. annual production capacity, nos. of pits proposed for production, site of waste dump and other mine design parameters.
- 21. Conceptual Mine planning should be modified taking into consideration of the revised production from in-situ excavations, available reserves and resources describing the excavation, recovery of ROM, Disposal of waste, backfilling of voids, reclamation and rehabilitation showing on a plan with few relevant sections. Conceptual land use patterns details have not been furnished. Need to furnish the same
- 22. In pursuant to the order dated 14.01.2020 passed by MoM, GoI, consequent up on the order dated 08.01.2020 of the Hon'ble Apex Court passed in W.P.(C) No. 114/2014, the lessee shall carryout "regrassing in mining area after closure of mines". Accordingly proposal has not been submitted in conceptual planning, conceptual plan and sections.

STACKING OF MINERAL REJECT/SUB GRADE AND DISPOSAL OF WASTE:

23. In Para 4a, the nature and quantity of top soil, overburden / waste and Mineral Reject to be disposed of have not been furnished in the following format.

	Top Soil (cum)		Waste (cum)				Mineral Rejects (tones)			
Year	Reuse/ spreading	storage	Total generation	Backf	Storage (dumpi ng)	Utiliza tion	Total generati on	Blending	Storage	Benefici

24. The year wise buildup of waste dumps has not been described in detail. The information should be furnished in the following table. No proposal should be submitted for dumping/stacking of mineral rejects over existing

minerals rejects stacks/mineral reject dumps of previous lessee. Further, the disposal of mineral stacks or mineral reject stacks produced by the present lessee should be proposed in such a manner that it does not get mix with the mineral stacks/mineral reject stacks of previous lessee and its disposal, if any should be proposed in non-mineralized area outside UPL. If proposal furnished is within UPL and mineralized area then it should be in temporary nature with proper justification. The mineral stacks of the previous lessee and proposed mineral stack of existing lessee should be distinguisly marked in all relevant plates and sections. Need to do necessary corrections.

Year	Waste Generation (in m3)	Waste Dumped (in m3)	Dump Name	Location of Dump (coordinates)	marr Arress	Top RL of the Dump	1 Supercount	Individual Terrace height	Slope of the terrace	Overall slope angle of dump

- 25. Existing as well as proposed year wise protective measures like retaining wall, garland drain, check dams etc., should be furnished in tabular format with details of location, length, dimensions etc., a separate table should be given showing the year wise construction of retaining wall, garland drain and settling tank having specific proposal. Details of year wise proposal for construction of retaining wall, garland drain, settling tank etc. to be given with their location.
- 26. The backfilling proposal should be provided as per the following format.

Year	Waste to be backfilled (in m3)	Area Nomencl ature	Location of backfilling (coordinates)	Existing and Proposed area (m2)	Proposed backfilling from and to mRL.	Relevant plan/section reference number
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USE OF MINERAL and MINERAL REJECT

27. The utilization of different end products produced from ROM processing of Iron ore viz., lumps and fines products grad wise, whether utilized in captive plant/sold in the open market should be mentioned clearly for individual different size and quality products.

PROCESSING OF ROM AND MINERAL REJECTS

28. The material balance chart has not been furnished. The ROM feed grade and tonnage with recovery%, grade and tonnage of product at each stage of processing may be shown in the flow sheet along with block diagram processing plant. The summary of the physical and chemical composition of feed material, grade and quantity along with different output products with physical and chemical composition (with nomenclature of product) should be furnished with recovery percentages. The recovery percentage considered at each stage of processing should be justified properly. Need to do necessary corrections.

PROGRESSIVE MINE CLOSURE PLAN

- 29. All the paragraphs have not been addressed in detail under PMCP chapter as per IBM Manual Appraisal MP 2014. The present land use pattern should be furnished as per the format of FA table of different heads.
- 30. In FA table the different heads should be kept as per the format specified in IBM manual appraisal 2014. The area under different heads of FA table should be properly shown in different hatching with present area and additional area in FA plan. Need to do necessary corrections at all relevant places.
- 31. Year wise mining plan proposals and land use pattern should be submitted in soft copy in the format of .kml or .shp file along with document. Need to do necessary corrections.

FEASIBILITY REPORT

32. The production figures considered in prefeasibility report are incorrect. Further, the revised production figures should satisfy the Schedule D of signed MDPA. Accordingly, cost and revenue factors such as the derivation of, or assumptions made, regarding projected capital and operating costs, the assumptions made regarding revenue including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, final price offer of 118.05% etc., the allowances made for royalties payable, both Government and private, Basic cash flow inputs for a stated period, Yearly planned production, Net Present Value (NPV) and Internal Rate of Return (IRR) of the deposit, intrinsic value of the deposit based on annual projected production should be rechecked and corrected. Market sensitivity study should also be rechecked and corrected. Accordingly, necessary corrections should be made at all relevant places in the document.

PLATES (General):

33. The conventions provided under the Metalliferous Mines Regulations, 1961, shall be used in preparing all plans and sections. All plans and sections should comply with the provisions of Rule 32 of MCDR 2017. The plans and sections submitted should bear the certificate that -the plans and sections are prepared based on the lease map authenticated by the state government. All plans and sections should be signed with date by Qualified Person. Date of observation of Magnetic meridian should be shown in all plans. n do necessary corrections.

- 34. With reference to CCOM Circular No 2/2010 and its addendum, the geo-referenced mining leases map superimposed on latest high-resolution satellite data has not been submitted.
- 35. The existing and proposed bench positions clearly with mRL to be mentioned in the all plans and sections. Date of survey has not been given on every plan and sections and the same should be signed by with date. Grid Lines have not been be shown in all plans and sections. All plans and sections should be signed with date by certified Surveyor, Qualified Person, Mine Manager, Mining Engineer and Mining Geologist
- 36. All plans and sections should be signed with date by certified Surveyor, Qualified Person, Mine Manager, Mining Engineer and Mining Geologist

Key Plan:

37. The key plan has not been prepared as per the provision of rule 32 (5) (a) of MCDR 2017 particularly the boundaries of all villages and towns with their population, forests with tree density, approach road to lease area, Latitude/longitude of the extreme ML pillar coordinates etc. have not been marked in key plan.

Surface Plan:

- 38. The features shown in the index is not distinguishably shown in the plan. Diverted forest area to be shown in the plan as well as marked in the index of the map. The UPL should be shown over the plan and in index. Necessary corrections to be done.
- 39. The features shown in the index is not distinguishably shown in the plan. Diverted forest area to be shown in the plan as well as marked in the index of the map. The UPL should be shown over the plan and in index. Necessary corrections to be done. Surface right area and forest, non -forest area, diverted forest area have not been shown. Few boundary pillars should be correlated with some permanent ground features giving distance and bearing/direction. Nomenclature of the existing waste and mineral reject dumps along with fines stack should be mentioned.

Geological Plan & Section:

- 40. The Geological Plan should be prepared complying the provision as laid down rule 32 (1) (b), (c) and (d) of MCDR'2017. Need to do necessary corrections.
- 41. The revised exploration proposal as mentioned in the scrutiny point should be incorporated in geological plan. The proposed boreholes to be shown in dotted lines in Geological sections along with proposed borehole number, RL and proposed closing depth at the bottom of the borehole. The year wise proposal for drilling to be shown in different contrasting color in both Geological Plan and Geological sections. The year wise color of the boreholes proposed in Geological plan should match with the plotted proposed boreholes in Geological sections. Need to do necessary corrections.
- 42. In geological sections, the grid lines along the X-axis have not been shown. The UNFC codes should be rechecked and corrected in all plans and sections. Bench RL have not been shown in the sections. Need to do necessary corrections.
- 43. The UPL has not been shown in geological sections. The UNFC codes have not been shown in sections. The blank portions of the sections above the UPL should be filled with relevant lithologies. The ore and mineral reject part considered in sectional method of calculation of reserves and resources should be demarcated in geological sections. Need to do necessary corrections.
- 44. The demarcation of ore and mineral reject has not been shown in geological sections justifying the calculations for reserve and resource estimation for the same by cross sectional method. Need to do necessary corrections.

Development plan & Section:

- 45. The development plans and sections should be prepared on updated geological plan and sections. Need to do necessary corrections.
- 46. The existing and proposed mineral stacks should be clearly demarcated and site selected or proposed for stacking should be of temporary nature. The area should be considered in FA calculation table. Need to do necessary corrections.
- 47. Year wise development mining plan proposals should be submitted in soft copy in the format of .kml or .shp file along with document. Need to do necessary corrections.
- 48. Quarry name, existing and proposed year wise bench profiles, waste dumps, mineral reject dumps etc. to be shown in the development plans and sections including legend. The lithology of the area should be clearly shown in year wise development plan and sections in the area proposed for development. In development plan, proposed benches RL should be clearly depicted. Proposed infrastructure and waste dumping should be furnished year to year basis in different color codes. The nomenclature of existing and proposed dumps should be clearly marked. In development section progress of dumping and others protective measures should be clearly depicted. Need to do necessary corrections. The UNFC codes should be rechecked and corrected after complying the above scrutiny points.

(Sudip Ranjar Mazumdar) Senior Mining Geologist

Senior Asst. Controller of Mines

Page 4 of 4