



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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No. MRMP/A/56-ORI/BHU/2020-21

Date: 19.03.2021

सेवामे

Shri H Mazumder, Director & Nominated Owner,
M/s Rungta Sons Pvt. Ltd.
Rungta Office, Main Road,
Barbil, Keonjhar,
Odisha- 758035

विषय: Approval of modification of Review of Mining Plan of Sanindpur Iron & Bauxite Mine along with Progressive Mine Closure Plan (PMCP), over an area of 147.10 ha in Sundargarh district of Odisha State, submitted by M/s Rungta Sons Pvt. Ltd under Rule 17(3) of MCR, 2016.

- संदर्भ: - i) Your letter No. RSPL/BBL/GEO/2020-21/1128 dated 08.03.2021.
ii) This office letter of even no. dated 09.03.2021.
iii) This office letter of even no. dated 09.03.2021 addressed to the Director of Mines, Govt. of Odisha, copy endorsed to you.

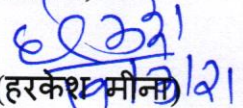
महोदय,

This has reference to the letter cited above on the subject. The draft of modification of Review of Mining Plan along with Progressive Mine Closure Plan (PMCP) has been examined in this office by Shri Dayanand Upadhyay, Senior Asst. Controller of Mines & Shri S R 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 Review of Mining Plan in the light of the contents vide Annexure- I and submit **three (3) firm bound and two (2) soft copies of the document text in USB Pendrive/Flash drive in a single MS Word file (the drawing/plates should be submitted in Auto CAD compatible format or JPG format in resolution of 100x100 pixels on same USB Pendrive/Flash drive)** with financial assurance under Rule 27 of MCDR 2017 of the Modification of Review of Mining Plan 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 Review of Mining Plan document. The plates are also to be submitted in separate volume.

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 Review of Mining Plan. It may be noted that no extension of time in this regard will be entertained and the modification of Review 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,


(हरकेश मीना)

क्षेत्रीय खान नियंत्रक

प्रतिलिपि सादर सूचनार्थ और आवश्यक कार्रवाई हेतु Shri Abhijit Sen, Shri D K Naik, M/s Rungta Sons Pvt. Ltd, Rungta Office, Main Road, Barbil, Keonjhar, Odisha- 758035.

(हरकेश मीना)

क्षेत्रीय खान नियंत्रक

Scrutiny comment on Modification of Review of Mining Plan including PMCP in respect of Sanindpur Iron and Bauxite mines, 147.10 of M/s Rungta Sons (P) Ltd. in Sundargarh district of Odisha State

GENERAL:

1. On cover page, lease, address, phone no., and fax no., and email address of qualified persons have not been furnished. Out of total forest area 126.324 ha, forest diversified area has not been furnished. Mine code should also be furnished along with registration number. Name of mineral as furnished on cover page should be omitted. The lease area falls under village, tehsil etc have not been furnished.
2. In introduction chapter, total forest area as furnished with breakup of broken area and virgin area has not matched. Page-3, Para-(b), it is mentioned that lessee further apply environmental clearance for enhancement of ROM production from 8.06 million tonnes to 16.5 million tonnes. However the bifurcation of the EC to be obtained has not been clarified in terms of quantity of ROM production, dump re-handling and wet beneficiation in line of earlier EC obtained vide letter no. J-11015/107/2018-IA.II(M), dated 11/09/2019
3. Page no.-6, as per IBM Manual Appraisal MP 2014 Para, Mineral(s) which is the applicant /lessee intends to mine has not been furnished.
4. Page no.-6, the registration number of the company under rule 45 of MCDR 2017 is to be furnished. Page-9, the co-ordinates of the boundary pillar in terms of easting and northing are to be furnished along with longitude and latitude.
5. Para-3.3, Page 14-16, the review of earlier approved proposal, the ROM production and excavation of waste, dump re-handling has not been updated. All the updated figures should be furnished accordingly. Details of plantation carried out, area covered, rate of survival and location of retaining wall/garland drain constructed in 2019-20 and 2020-21 should also be furnished.
6. Page-18, Para-3.6, reason of modification for enhancement of ROM production of 16.5 million tones has not been described considering the demand and supply and others parameters. It should be justified properly.
7. Lessee is a company. Hence, all certificates, undertakings, consent letter etc. should be signed by the nominated owner only. Extract from the minutes of the Board of director meeting with list of Board of Directors, their phone no. address and declaration of nominated Owner to be furnished.
8. The experience certificate of all qualified person should be as per provision of rule 15(1)(b) of MCR 1960. Recent photographs of pits, dumps, afforestation and reclamation and rehabilitation carried out should be enclosed.
9. Sequence of para and its numbering as per IBM Manual appraisal MP 2014 should be 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 annexure and text to be properly indexed/ numbered/ paged and signed by qualified person. All the certificates/annexures should bear dated signature.

GEOLOGY AND EXPLORATION:

10. The structural information like strike, dip, dip-direction etc have not been shown. All these information should be reflected on geological plan and section. Further, Ore zone and litho units should be depicted on plan and section based on surface exposure, bore hole logs and threshold value.
11. In Para I, the future exploration program proposed should be modified to the extent mentioned below.
 - a) Rule 12 (4) of MCDR 2017 states that "detailed exploration (G1 level) over the entire potentially mineralized area under the mining lease shall be carried out within a period of five years from the date of commencement of these rules". Accordingly, it is observed that the exploration proposal proposed till 2022-23 which should be completed by 2021-22. Need to modify the exploration proposal accordingly in text, plates and at all relevant places in the document.
 - b) As per CCOM Circular No.3/10 and rule 12 (6) of MCDR 2017, fresh proposal for drilling should be proposed in the locations where boreholes have been terminated in ore zone above the threshold value of iron ore (i.e. 45% Fe). Need to do necessary corrections.
 - c) The depth of the proposed boreholes should be 100m or till the end of mineralization and depth of the proposed boreholes should be furnished considering the lateral and depth ward continuity of ore body along and across the section lines. Need to do necessary corrections.
 - d) The proposal for exploration of entire lease area till the end of mineralization should be ensured. Accordingly, exploration proposal should be furnished.
12. Form- J of the boreholes drilled in year 2019-20, 2020-21 has not been submitted. Further, chemical analysis reports of these boreholes from NABL accredited laboratory have not been submitted. Need to do necessary corrections at all relevant places in the document.
13. In Geological sections, the litho-correlation has not been done scientifically considering the lateral and depth ward influence of ore body along and across the section lines and as evidenced from borehole logs. The ore body should be limited to depth as per the provision of Part II point no.4 MEMC Rules 2015. The Geological section should corroborate with the lithology. UNFC codes should be shown in geological sections. The gap areas in the geological sections above the UPL have not been filled with relevant lithology. Need to do necessary correction.
14. The increase in reserve and resource has not been justified scientifically with the borehole data as the chemical analysis of all the borehole samples has not been submitted. Reserves and Resources have to be re-estimated by cross sectional method

showing detail calculation of sectional wise reserves and resources; cross-sectional area, length of influence, volume, bulk density, recovery factor and tonnages separately for different categories of ore and mineral reject under different UNFC codes within the provision of MEMC Rules, 2015. Need to furnish the required information and do necessary corrections at all relevant places in the document.

15. The parameters considered for resource estimation has not been justified. Bulk density test reports of ore and mineral reject separately from NABL accredited laboratory has not been submitted. Copies of Form J of all drilled boreholes have not been submitted. The chemical analysis results of borehole samples from NABL accredited laboratory have not been submitted. NABL accreditation certificate of the laboratory has not been furnished. Indexing of borehole logs with page numbers have not been done in sequence. Need to submit necessary corrections.
16. The diverted unbroken forest area boundary is not legible in the plan. The documentary evidence of forest diversion has not been submitted. The position of UPL has not been justified. Thereby, the enhancement of reserves and resources has not been justified. Need to do needful.

MINING:

17. Page-65, it has been proposed to enhance the production from 8.06 million tonnes to 16.5 million tonnes per annum. However it has been observed that in the view of enhancement of ROM production, space for accommodation of waste, mineral reject, beneficiation facility and extent of the quarry/pit have not been furnished in proposed method of mining.
18. Table no.2.2 and 2.3, , the details of existing mineral reject dumps as furnished grade wise should be matched with data furnished in last monthly returns in terms of quantity and quality. In table-2.2 dump-B has been mentioned waste dump while in grade of mineral reject column it is mentioned 45-58%Fe. It should be clarified.
19. Page-69, as per annual return submitted to this office, it has been observed that no mineral reject generation is reported since 2017-18. In chapter review of approved proposal it is clarified that "during mining operation different grades of ore obtained simultaneously to achieve optimum recovery of ore from the deposit and low grade ore/mineral reject was mixed with ROM during mechanized mining". Therefore year wise generation of mineral reject as furnished in table-2.5 and 2.6 should be described accordingly in reference to mixing/blending so that optimum grade of usable ore obtained. Therefore at the end of the table a year wise summary of total usable ROM (ore + mineral reject) should be furnished.
20. It has been observed that the UPL has been revised prevailed on the mineralization below the dump-B and accordingly reserve and resources has also been revised. In earlier approved document the resources considered outside the UPL below Dump-B has converted in mineable reserve revising the UPL in the instant document. Therefore in light of mineral conservation and scientific development of the mines further dumping on Dump-B is not acceptable. In view of above revised proposal of dumping should be proposed.
21. In view of enhancement of ROM production, the year wise proposal of development of infrastructures and transportation facility to be developed has not been described in text. The mode of transportation should be described in line of EC Capacity based Suggested Ore Transport Mode (SOTM) as per NEERI recommendations. Accordingly mode of transportation system should be proposed and related proposed infrastructure facility should be be marked in development plan and other relevant plans.
22. Page-82-100, year wise proposed development and production program has not been correctly furnished. For the year 2021-22 it mentioned that 7 nos. of sections has been considered for development and production of ROM. However it has been observed that in development plan 8 nos. of sections have considered. Therefore all the year wise proposed development and production program should be re-checked and corrected accordingly.
23. Calculation of insitu tentative excavation as furnished in table no.-2.14, 2.16, 2.18 & 2.20 are not matched with the development plan and sections. The RL wise calculation of ore, mineral reject and waste/OB are not correctly furnished as the RL wise area of cross section considered are not matched with development sections. The quantum of excavation as proposed not justified with the development sections. The ore profile as furnished in development sections of instant document has not been matched with development sections of earlier approved document except changes occur due to new bore holes and it has also been observed that some of the bore holes are missing.
24. Page-104, the requirement of machineries in light of enhancement production should be proposed considering the parameters, bucket capacity, swell factors, lead distance, idle time, availability etc.
25. Page 114, briefly the layout of mine workings, pit road layout, the layout of faces and sites for disposal of overburden/waste along with ground preparation prior to disposal of waste, reject etc.
26. Page no.-115, Para-2.7, in conceptual mining plan, the life of the mine as projected based on the mineable reserve is not justified with Geological plan and sections. The mineable reserve as furnished in earlier approved document (as on 20/08/2020) and further deduction of ROM production, it has been observed that about 16.11 million tonnes enhancement of mineable reserve has been furnished. Therefore enhance quantity of mineable reserve should be furnished in brief in table considering the cross-sections and bore holes and quantity enhanced in each section comparing to earlier approved document to justified the life of the mine.
27. 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 "re-grassing in mining area after closure of mines". Accordingly it should be discussed during conceptual period

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

28. A new dump-D has proposed to accommodate the waste dump during proposed plan period. Therefore before dumping it is to be ensure that area proposed for dumping should be non-mineralized by priorities of drilling of bore holes.
29. Re-handling of old dumps should be furnished with total quantity of low grade, quantity to be re-handle, percentage recovery of saleable and non-saleable material with grade. Quantity of re-handling and quantity of saleable and mineral reject is correctly furnished considering the bulk density of saleable ore and mineral reject respectively.
30. In text the grade of the dumps A, B, C is mentioned 45%Fe to-58%Fe. However in dump re-handling the estimated recovery of +58%Fe is furnished 30% and recovery of -58% Fe is furnished 70%. Further, average grade of dumps have not been furnished. The average recovery of ore and mineral reject from dumps are to be furnished with detailed study. Thus, volume, quantity, recovery percentage and grade of dumps have to be re-estimated and furnished with detail calculation. It should be supported with dump plan and sections to be re-handled, RL wise with grade and quantity and analysis report should be enclosed.
31. It has been observed that re-handling of mineral reject dumps has not been marked in development plan and section year wise.
32. Give the details of the existing dumps (top soil, waste dump, mineral reject dump) within the lease area in tabulated form comprising dump number, designed capacity, present quantity, bottom RL and top RL.
33. Details Existing and proposed retaining wall, garland drain, settling tank etc. to be given year wise with their location. Location of sub-grade storage along with year to year development of the SG dumps to be given.

PROCESSING OF ROM AND MINERAL REJECT:

34. 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. 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.
35. The water balance chart as furnished should be revised in light of enhancement of ROM production and wet beneficiation of ROM. The source of water consumption and permission taken from competent authority should also be furnished.

PROGRESSIVE MINE CLOSURE PLAN:

36. Page-147, Para-8.1, describe a brief notes on environment base line information on the basis of EIA and EMP submitted to MOEF.
37. Page-169, table no.-8.23, in table of calculation of financial assurance, the 5.374ha area reduced from the waste dump is justified with bullet noted. Further the new area proposed for dumping termed as dump-D has not been taken into account for FA calculation. It should be re-checked and rectified accordingly.
38. Updated air, water, noise, ground vibration and soil data with analysis from laboratory done at specified periodicity for last one year to be enclosed.
39. Year wise plantation covering number of saplings to be planted, location and area covered may be furnished. Proposal of coir matting/geo textile and area covered etc may be furnished.
40. Para-8.3.3, The details of existing and proposed tailing pond described with their location, shape and size, capacity, safety measures taken alongwith study report from reputed institution.
41. All the active dumps should be proposed with extension of retaining wall and garland with settling tanks with proper terracing and stabilization of slope. The dead dumps should be proposed for fully rehabilitation by plantation and with gap plantation if necessary. The proposed and existing retaining wall, garland drain and settling tanks should be clearly marked year wise on reclamation plan.
42. 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:

43. The content of feasibility/pre-feasibility report and analysis of economic viability of the project is not described in detailed as per rule 16 and Part-V of MEMC Rule 2015. The economic viability of the project should be supported with NPV, IRR, Payback period by cash flow chart with cost involved in environmental and others protective measures and clearances, operational cost, administrative cost, infrastructure, royalty, NMET, DMF, closure cost etc.

PLATES (General):

44. All the plan and sections should be signed with date by certified surveyor, qualified person, mines manager and mining geologist. The plans and sections submitted bear the certificate that --the plans and sections are prepared based on the lease map authenticated by the state government.
45. All plans and sections shall show a scale of the plan at least twenty five centimeters long and suitably subdivided. All plans & sections prepared shall follow the sign conventions mentioned under MMR 1961.

46. Wind direction may show through wind rose diagram in key plan and environmental plan. Approach road to the ML to be shown.
47. Existing and proposed bench RL to be mentioned in the all plans and sections. The UPL should be shown in red color in all relevant plans and sections. Magnetic Meridian with declination and date of observation of should be given on all relevant plans. Approach road to the ML to be shown.
48. The CCOM circular no.2/2010 and its addendum should be implemented. The lease area as furnished in DGPS plan is not matched. It may be clarified.

Key Plan:

49. 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.

Surface Plan:

50. Few pillars may be correlated with some permanent ground features giving distance and direction. Different land use may be shown with color codes. Virgin area is to be shown by contours and spot RL in surface plan. Forest & Non forest area, Surface right acquired area etc. should be marked clearly. All the mineral reject dumps, mineral stacks, OB dumps should clearly notified with nos. and their RL.

Geological Plan & Section:

- a) Potentially mineralized area as per the borehole data and surface geology has not been marked over geological plan. Proposed boreholes to be shown in dotted lines and borehole proposal should be completed by 2021-22. Need to do necessary correction.
- b) In the index of the geological section the grade of ore considered for ore and mineral reject has not been mentioned corresponding to the lithology in the index in order to justify the grade wise resource estimation. Need to do necessary corrections at all relevant places.
- c) In the Geological Plan UNFC boundaries of G1, unexplored area etc. has not been furnished as per Minerals Evidence of Mineral Contents Rules 2015. Geological sections to be shown in equal intervals as per UNFC category. Sections to be prepared from lease to lease boundary.
- d) In the Geological sections, the boundary of UNFC codes (111, 211 etc.) has not been correctly furnished. In some sections, the UNFC codes for reserves and resources have not been mentioned. Need to do necessary corrections.
- e) The Geological Plan should be prepared to satisfy the provision as laid down rule 32 (1) (b), (c) and (d) of MCDR'2017.
- f) Scientific correlation of geological section has not been done as per the provision of MEMC, Rules 2015. In Geological plan and sections, the areas shown as blank should be filled with relevant lithology. UNFC codes, UPL should be shown in Geological sections.
- g) In few sections, the borehole logs and lithology shown in section does not match. Need to do necessary corrections.

Development plan & Section:

51. The UPL is not correctly drawn in plan & sections considering the lateral as well as depth ward extension of the ore zone. The RL of proposed and existing benches not marked clearly. The proposed tailing pond to be shown in development plan. Re-handling of dumps should marked in development plan & section. Development plan has not been furnished with existing benches.
52. The development plans and sections should be prepared on updated geological plan and sections. Year wise 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.

Environment plan:

53. The Environment Plan as prepared should be satisfy the provision as laid down rule 32(5) (b) of MCDR2017. Environment Plan, natural drainage systems such as water course, streams, nallah, river, Forest with tree density, waste land, agricultural land, grazing land and surface features of 500 buffer zone should be shown.

Financial Assurance Area Plan:

54. The area degraded due to mining and allied activity and waste dump sites to be considered in FA calculation. The existing area and additional area under different heads should be shown properly under different colored hatching.

Conceptual plan & section:

55. Conceptual plan may be prepared considering mineralization as revealed from the borehole logs. Direction of run off from the area based on surface contours may be shown on the plan and the sections.

Sudip Ranjan Mazumdar
19/3/21
(Sudip Ranjan Mazumdar)
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Dayanand Upadhyay
19.03.21
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