



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/15-ORI/BHU/2020-21

Date: 15.09.2020

सेवामे

Shri M D Rustagi, 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/ED/GEO/2020-21/368 dated 31.08.2020 received on 07.09.2020.
ii) This office letter of even no. dated 07.09.2020.
iii) This office letter of even no. dated 07.09.2020 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 Ramkishan R, 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,
15/09/2020
(हरकेश मीना)

क्षेत्रीय खान नियंत्रक

प्रतिलिपि सादर सूचनार्थ और आवश्यक कार्रवाई हेतु Shri Abhijit Sen, Shri Sangram Kishori Garnaik & Shri Saroj Kumar Das, 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 Ha of M/s Rungta Sons (P) Ltd. in Sundargarh district of Odisha State

GENERAL:

1. In the cover page, the rule under which PMCP has been submitted is incorrect. Considering the modifications envisaged in the approved PMCP proposal, it should be submitted under rule 25 of MCDR 2017. The period of proposal has not been furnished in financial year. Need to do necessary corrections at all relevant places in the document.
2. Sequence of paragraph, formats and its numbering as per IBM Manual Appraisal MP 2014 has not been covered in text. All the headings, formats as mentioned in the IBM Manual Appraisal MP 2014 should be furnished in all chapters in the text.
3. All the categories/grade of Ore above cutoff grade should be termed as "Ore" and between threshold value and cutoff grade as "Mineral Reject". The term "subgrade" should be replaced by "mineral rejects". Necessary corrections to be done at all places in text, table and plates.
4. The term "processed low grade ore/subgrade/low-grade" analyzing between 45% Fe to 58% Fe part of ROM should be replaced with the term "Mineral Reject" and the term "Processed Ore" analyzing above 58% Fe should be replaced with "Ore". The term "concentrate" should be removed from all places in text. Need to do necessary correction. Necessary corrections to be done at all places in the document.
5. The information furnished under Para 3.1, regarding the validity period of sl.no.10 details is incorrect. Further, the date of approval has not been furnished. Need to do necessary corrections.
6. In Para 3.3, review of earlier approved proposal in respect of exploration, excavation, reclamation, environment etc. for the financial year 2019-20 along with reasons for deviation, if any has not been furnished.. Need to do submit review for the year 2019-0 only.
7. In para 3.4 the status of compliance to the violations pointed during the year 2018-19 and 2019-20 if any should be furnished.
8. In para 3.6 the reasons for justification of modification of mining plan has not been elaborated in detail with intended modifications. Further, the same should be furnished at all other relevant places in the document. Need to do necessary corrections.

PART-A: (1). GEOLOGY AND EXPLORATION:

9. In para I, under future exploration program, the year of exploration furnished is incorrect for the proposed drilling period 21.08.20 to 31.03.21. In table no 1.7 the area identified as forest/ diverted forest/surface right etc. for the proposed boreholes is incorrect and should be corrected. Need to do necessary corrections at all relevant places in the document.
10. The Form- I and Form- J of the boreholes drilled in year 2019-20 has not been submitted. Further, chemical analysis reports of these boreholes from third party NABL accredited laboratory have not been submitted. The bulk density test report for ore and mineral reject have not been submitted separately for different grades of ore and mineral reject. Need to submit bulk density test report from NABL accredited laboratory. Further, the method to arrive at average bulk density for ore and mineral reject have not been described. Need to do necessary corrections at all relevant places in the document.
11. Parameters considered for resource estimation has not been justified. The change in recovery factor has not been justified. In Geological sections, the litho correlation has not been done scientifically considering the lateral and depth ward influence of 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.
12. The increase in reserve and resource has not been justified scientifically and also it is not mentioned whether impact is due to boreholes drilled in 2019-20 or not. Reserves and Resources have to be re-estimated and 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 UNFC codes within the provision of MEMC rules, 2015. The estimation should be done for grade between threshold and cut off grade and above cut off grade separately. The detail calculation of reserve under 111 category of UNFC through cross-sectional method has not been furnished. Need to furnish the required information and do necessary corrections at all relevant places in the document.

PART-A: (2). MINING:

13. Justification for area proposed for mining has not been submitted with respect to exploration, mineral conservation etc.
14. The information regarding existing and proposed waste dumping sites over mineralized or non-mineralized area, within or outside UPL, temporary or permanent should be furnished in detail in tabular format. The rehandling of existing and proposed waste dumps should be proposed if their sites fall within the UPL and over mineralised areas with technical justification.
15. A table showing year wise ROM (Ore & Mineral Reject in tones), Waste in cum from insitu and dump workings should be furnished in tabular format along with total ROM and Waste quantity in a summarized table covering all the years.
16. Development plan and sections should be modified after modification of geological plan and sections. Need to do necessary corrections.
17. The recovery factors considered for the material between 45-58 % Fe and +58 % Fe neither has not been supported by any time series data nor by any analysis reports of representative samples collected as mentioned in In page no.67, 76, 83 etc., and related part of the text for dump workings as well as in-situ workings. It should be submitted and changes in the relevant part of the text should be made in the entire document by referring to the corresponding documents in annexures.
18. The modified recovery of 100% in resource estimation is not justified when waste comprises of OB, SB and IB. further, nature of waste has not been defined. Need to do necessary corrections with justification at all relevant places in the document.

4.0 STACKING OF MINERAL REJECT /SUB GRADE MATERIAL AND DISPOSAL OF WASTE

19. Justification of proposed waste dumping sites w.r.t to status of exploration, non-mineralization and outside the UPL have not been furnished. Dump plan and sections should be modified to the extent that sub surface lithology has not been shown.
20. Existing as well as proposed 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. Proposal for protective measures have not been submitted around mineral reject dumps and waste dumps.
21. The proposal for temporary stacking of mineral stacks should be modified to the extent that it will not hamper the overall systematic and scientific development of the mine. Need to modify the proposal accordingly.
22. Backfilling proposal should be justified to the extent that before commencement of backfilling the area is devoid of mineralization justified through plans and sections showing subsurface lithology, BH date etc. else proposal for backfilling should be modified accordingly. Further, the area has to be proved barren with fresh drilling before commencement of backfilling. Need to modify the exploration as well as backfilling proposal accordingly.
23. The mineral rejects that are going to be generated during the plan period year wise should be addressed so that how they are going to be handled like storage, temporary storage, beneficiation etc., need to do necessary corrections in the entire text of the document wherever relevant.
24. It is proposed to dispose dried tailings mixed with waste material for backfilling of the exhausted pits but a scientific study report conducted by institute of repute in this regard has not been submitted. Need to submit the same.

PROCESSING OF ROM AND MINERAL REJECTS:

25. Water requirement of beneficiation plant is not correctly furnished. It should be in tabular form with total requirement of water for mine and their consumption in different heads along with beneficiation plant (250TPH). Source of water, permission form concern department, recycle of water and water balance chat should be described in details.
26. The technical study report conducted by scientific institute of repute has not been enclosed regarding the beneficiation plant in support of process flow sheet of IOBP furnished in page 144. The enclosed annexure along with draft document is not relevant regarding the same. Need to submit the same.

PROGRESSIVE MINE CLOSURE PLAN:

27. The air, water and noise monitoring stations and their frequency of monitoring have not been furnished in tabulated format. All water discharge points from lease area to external should be monitored. Accordingly, monitoring proposal to be submitted. Further, Gap plantation along the safety zone should be furnished.
28. Year wise plantation covering number of saplings to be planted, location and area to be covered may be furnished. The same should be reflected in reclamation/rehabilitation measures tables furnished year wise. Proposal of coir matting/geo textile and area covered etc. may be furnished.
29. Financial assurance should be recalculated as per provision of rule 27 of MCDR 2017. Calculation of Financial Assurance as shown in table no. 8.22 is not in per the format specified in IBM appraisal of Mining Plan 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.

PLATES (GENERAL):

1. Magnetic Meridian and date of observation should be given on all relevant plans. Date of survey should be given on all plans and sections and signature should bear date of signature. All plans & sections prepared should follow the conventions mentioned under MMR 1961. All plans and sections shall show a scale a scale of the plan at least twenty five centimeters long and suitably subdivided. 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. The index should be kept same in all the plans and sections.
2. **Key Plan:** The key plan should incorporate all features as mentioned Rule 32 (5) (a) of MCDR 2017. The approach road to the lease area, 5 Km boundary and wind rose diagram etc. has not been shown.
3. With reference to **CCOM Circular No 2/2010**, the geo-referenced mining leases map superimposed on latest high-resolution satellite data has not been submitted.

4. SURFACE PLAN:

- (i) Forest, Non-forest and surface right area to be shown in surface plan. The Surface Plan should be prepared to satisfy the provision as laid down rule 32 (1) (a) of MCDR'2017.

5. GEOLOGICAL PLAN & SECTION:

- (i) Geological plan and sections to be shown in 1: 2000 scale. The lithology of the forest area should be rechecked and corrected. Potentially mineralized area should be marked over geological plan. Proposed boreholes to be shown in dotted lines. Need to do necessary correction.
- (ii) In the index of the geological section, the term sub grade ore/mineral rejects should be replaced with relevant lithology from borehole log and same should match with geology shown in cross-sections. The grade of ore considered for ore and mineral reject should be 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.
- (iii) 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.
- (iv) Cross section lines with nomenclature have not been shown on the geological plan. The Geological Plan should be prepared to satisfy the provision as laid down rule 32 (1) (b), (c) and (d) of MCDR'2017
- (v) 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.
- (vi) The reserves and resources within the diverted forest area should be reestimated considering the UPL limit up to the diverted forest area boundary. The UNFC code "111" and "211" have not been shown in geological plan. Longitudinal sections have not been submitted. Need to submit the same.

6. DEVELOPMENT PLAN & SECTION:

- (i) Development plan and sections should be revised based on updated geological map and sections.
- (ii) Index of the UPL should be shown in plan and sections. Need to do necessary corrections.
- (iii) The proposed and existing bench mRL to be shown clearly over year wise development plan and sections.
- (iv) Geological information (lithology) has not been furnished on the area proposed for development in year wise development plan and sections. Plan and section should be drawn on same scale on 1: 2000.

- (v) Existing and proposed protective measures and plantation should be shown in different colors around all waste dumps and mineral reject dumps. Index of safety zone boundary and surface right area should have distinct color.
- (vi) Year-wise development plan and section should be separately submitted on same scale. Color index of the year wise proposal should be modified as discussed in during field inspection.
- (vii) Re-handling of dumps should marked in development plan & section. Development plan has not been furnished with existing benches.

7. DUMP PLAN AND SECTION

- (i) Dump plan and sections should be modified to the extent that sub surface lithology has not been shown. Dumping proposal should be outside the UPL and in barren area. Section showing reclamation of mined out pit through backfilling should be submitted with due justification of exhaust of minerals.

8. ENVIRONMENT PLAN:

The environment plan has not been prepared as per the provision laid down in rule 32 (5) (b) of MCDR'2017. Adjacent lease boundaries within 500m of lease boundary have not been shown.

9. RECLAMATION PLAN:

Existing and proposed protective measures and plantation should be shown in different colors along all waste dumps and mineral reject dumps. Backfilling proposal should be shown clearly. Index of safety zone boundary and surface right area should have distinct color.

10. 10. ENVIRONMENT MANAGEMENT PLAN NEED NOT BE SUBMITTED.

11. FINANCIAL ASSURANCE AREA PLAN:

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.

12. CONCEPTUAL PLAN AND SECTION:

Conceptual Mine planning up to the end of lease period taking into consideration the present 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.

ANNEXURES:

1. Few photographs showing Land use of the lease area, environmental status of the area have not been furnished.
2. The tailings analysis from existing tailing pond representing entire tailing pond with samples collected at regular interval by third part and analyzed by third party NABL accredited laboratory have not been submitted. The report should reflect the sample location point in a schematic diagram along with tailing analysis (Fe %). Need to submit the same.
3. The study report carried out for design and installation of existing beneficiation plant with material balance including feed, its product with recovery, grade etc. at each stage of processing have not been submitted. Need to submit the same.
4. Details of Qualified person like experience and qualification as per provision of rule 15 of MCR 2016 should be furnished.
5. Copy of quality of air, water, soil, noise and other environmental a parameters monitoring report of the last year should be enclosed.
6. All the annexure to be properly numbered/paged and relevant annexure to be signed by qualified person etc. It is observed that many of the annexures are not legible. A legible copy of same to be enclosed. The details of all the BH to be annexed year wise BH wise. The lithology of the borehole logs should match with the lithology shown in Geological sections.
7. Bulk density test reports of ore and mineral reject separately from NABL accredited laboratory has not been submitted. Need to submit the same.
8. Copy of valid bank guarantee has not been enclosed. Need to submit the same.
9. Copies of Form I and Form J of all drilled boreholes have not been submitted. Need to submit the same.
10. The chemical analysis results of borehole samples from NABL accredited laboratory have not been submitted.
11. NABL accreditation certificate of the laboratory has not been furnished.
12. Indexing of borehole logs with page numbers have not been done in sequence

Semagundar
14/09/20
(Sudip Ranjan Mazumdar)
Senior Mining Geologist

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14/09/2020
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