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. RMP/A/20-ORI/BHU/2020-21 Date: 13.10.2020

सेवामे

Shri Arjun Saraswat, Director,
M/s Sarda Mines Pvt. Ltd.
Thakurani Iron Ore Mine,
Post Box No-85, Po- Barbil,
Dist- Keonjhar, Odisha-758035

विषय:Approval of Review of Mining Plan of Thakurani Iron Ore Mine along with Progressive Mine Closure Plan (PMCP), over an area of 947.046 ha in Keonjhar district of Odisha State, submitted by M/s Sarda Mines Pvt. Ltd under Rule 17 of MCR, 2016.

संदर्भ: - i) Your letter No. SMPL/TIOM/2020/4237 dated 25.09.2020 received on 28.09.2020.
ii) This office letter of even no. dated 28.09.2020.
iii) This office letter of even no. dated 28.09.2020 addressed to Director of Mines, Government of Odisha copy endorsed to you.

महोदय,

This has reference to the letter cited above on the subject. The draft Review of Mining Plan along with Progressive Mine Closure Plan (PMCP) has been examined in this office by Shri Ramkishan R, Senior Assistant 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 Review of Mining Plan in the light of the contents vide Annexure 1 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 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 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 final copies of the Review of Mining Plan. It may be noted that no extension of time in this regard will be entertained and the 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,
13/10/2020
(हरकेश मीना)
क्षेत्रीय खान नियंत्रक

Copy for kind information and further necessary action to Shri P S Acharya & Shri S M Patra, M/s Gemtech Consultants Pvt Ltd, K-8/625, Kalinga Nagar, Ghatikia, Bhubaneswar- Odisha 751029.

(हरकेश मीना)
क्षेत्रीय खान नियंत्रक

Scrutiny comments on examination of Review of Mining Plan along with PMCP of Thakurani Iron Ore Mines Block-B of M/s Sarda Mines Private Limited over an area of 947.046 Ha in Keonjhar District of Odisha State

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GENERAL POINTS:

1. The 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.
2. Resolution of board of directors regarding the appointment of Nominated owner has not been enclosed. In page no.8 it is mentioned as it is annexure-14 but it is a undertaking given by nominated owner for different purpose. GST certificate should be enclosed.
3. All the annexure, text and tables in the text have not been properly nomenclature/indexed/ numbered/ paged and signed by qualified person. All the certificates/annexures should bear signature.
4. In para 3.3, the non-compliance of exploration has not been justified with documentary evidences with respect to forest area, diverted forest area, non-forest area, surface right area, forest clearance etc. The same should have not been justified through geological plan as well. Need to do necessary corrections.
5. Under para 3.6 the details should be omitted as it is not applicable. Need to do necessary corrections.
6. The plan period is proposed from the year 2021-22 to 2025-26 but as per the executed lease deed the lease period validity is till 13.08.2021 only. So the supporting document details regarding the subsistence of lease period confirmed by competent authority of State Govt. of Odisha have not been submitted. Need to furnish the same.

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

7. All resources shall be assessed up to the threshold value and the resources between the threshold value and the cut-off grade shall be reported separately for all categories of UNFC with grade. In the section wise reserve and resource calculation, the term 'Gross Quantity' and 'Net Quantity' is not relevant and should be replaced with appropriate terms. The term 'density' in the calculation should be replaced with 'bulk density' and unit of bulk density should be mentioned. Further, at places, the header has been given but the deposit name and type of resource under UNFC category has not been mentioned. Further, resources should be re-estimated for different UNFC categories shown in tabular format estimated through cross sectional method. Need to do necessary corrections at all relevant places.
8. Justification of all UNFC codes have not been furnished in tabulated format as per UNFC guidelines. Need to discuss in detail. Need to do necessary corrections.

PART-A: (2). MINING:

9. Justification for area proposed for mining has not been given with respect to exploration, targeted quantity and grade considering mineral conservation and grade.
10. Powder factor derived in blasting parameters has not been furnished.
11. In situ excavation of OB/IB/waste, Ore, and Mineral reject should be rechecked and corrected based on updated geological sections after re-estimation of reserves and resources based on MEMC rules 2015. Need to do necessary corrections at all relevant places.

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

12. The nature/ type of mineral reject and waste material have not been described or classified. Quantity of waste to be generated and subsequently stored or backfilled should be rechecked and corrected. Need to do necessary corrections.
13. The disposal of waste and mineral reject and soil to be furnished as per table furnished in IBM Manual appraisal MP 2014.
14. 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.

OTHERS:

15. Information in respect to the existing and proposed manpower right from management level to unskilled labor both on role and contractual has to be mentioned separately in the text.

PROGRESSIVE MINE CLOSURE PLAN:

16. 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.
17. All the paragraphs should be 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.
18. In table 8/12, under area reclaimed during the year 2021-22 is incorrect and should be corrected.
19. In the "SUMMARY OF YEARWISE PROPOSAL of PMCP" as shown in table in page 198, the Information furnished under "Void available for Backfilling (L x B x D) pit wise /stope wise" furnished as Nil is incorrect. Need to calculate the void available for backfilling as proposal for backfilling has been submitted subsequently. The units of area/volume etc. have not been mentioned. Further, information of protective measures (i.e., construction/maintenance of retaining wall, garland drain, settling pond etc.) to be undertaken has not been furnished in detail. Need to do necessary corrections.
20. Back filling proposal has not been explained properly. The proposed backfilling, reclamation and re-habilitation to be carried out should be furnished:

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. The authenticated DGPS surveyed mining lease boundary has not been submitted. Need to submit the same.
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. **KEY PLAN:** Key plan have not been submitted. The key plan should incorporate all features as mentioned Rule 32 5 (a) of MCDR 2017. The approach road to the lease area and wind rose diagram should be shown. Wind rose diagram should be shown.
5. **SURFACE PLAN:**
   (i) The Surface Plan should be prepared to satisfy the provision as laid down rule 32 (1) (a) of MCDR'2017. The DGPS surveyed latitude-longitude and UTM coordinates of all the boundary pillars should be rechecked and corrected as per DGPS survey.
   (ii) Telephone tower legend has not been shown in surface plan.
   (iii) Non forest area has not been demarcated

(iv) Disputed area not been clarified with reasons in the text
(v) Applied area boundary and approved area boundary has not been clarified.

6. **GEOLOGICAL PLAN & SECTION:**

(i) Part surface and part geological plans of actual working on a scale of 1:2000 as per the condition of scale relaxation (ref. annexure no. 24) have not been submitted. Need to submit the same.

(ii) Unexplored area has not been marked on Geological plan. Index of G3 is incorrect Need to do necessary corrections.

(iii) The Geological Plan should be prepared to satisfy the provision as laid down rule 32 (1) (b), (c) and (d) of MCDR'2017.

7. **DEVELOPMENT PLAN & SECTION:**

(i) Development plan and sections should be revised based on updated geological map and sections.

(ii) Index of the UPL shown in plan and section and those shown in index is different.

(iii) The proposed and existing bench mRL to be shown clearly over year wise development plan and sections.

(iv) Geological information (lithology) to be furnished on development plan and sections. Plan and section should be drawn on same scale.

(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.

8. **ENVIRONMENT PLAN:**

The environment plan has not been prepared as per the provision laid down in rule 32 (5) (b) of MCDR'2017. For example the contour lines are more than 5 meters interval. Wind rose diagram should be shown. Need to do necessary corrections.

9. **RECLAMATION PLAN**

Reclamation plan should incorporate the reclamation, rehabilitation measures as per PMCP during the proposed plan period.

10. **FINANCIAL ASSURANCE AREA PLAN:**

Land degradation under different heads as shown in FA table has not been properly demarcated. The hatching should be rechecked and corrected.

ANNEXURES:

1. Few photographs showing Land use of the lease area, environmental status of the area have not been submitted.
2. Copy of quality of air, water, soil, noise and other environmental a parameters monitoring report of the last year should be enclosed.
3. 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.
4. Copy of bank guarantee has not been submitted as per rule 27 of MCDR 2017.

Mazumdar 9/10/20

(Sudip Ranjan Mazumdar)
Senior Mining Geologist

R. Ramkishan 9/10/2020.

(Ramkishan R)
Senior Asst. Controller of Mines