

Scrutiny comments of Modification of Mining Plan in respect of Siljora-Kalimati Iron & Manganese Mine Over an area of 713.510 ha of Shri Debabrata Behera submitted under Rule 17 (3) of MCR, 2016.

General

1. The document should be prepared as per the mining plan template format provided in CCOM circular No.01/2021 dated 07.06.2021. No alteration/deletion/change in format of the mining plan template is allowed. Any additional information may be submitted as annexure only if required.
2. The Modification plan proposal period along with existing period is to be furnished in cover page.
3. Before general information an introduction to be furnished incorporating the history of lease details. Further, information to be submitted as per following Format.

Year	Existing proposal as per approved RMP in Tonne	Modification proposed per annum	Remark
2020-21			
2021-22			
2022-23			
2023-24			
2024-25			

4. All the information in the various table columns of different chapters as per the prescribed format in the template should be furnished. No column/rows should be left blank. If not applicable, it was written as not applicable.
5. The final soft copies of the document shall be digitally signed by the Qualified Person and Nominated owner.
6. The document should preferably be submitted in excel(.xls)/word format. The plates/plans are to be submitted in .kml/.kmz/.shp format. A few sections may be submitted in .pdf format as indicated in the CCOM Circular 1/2021. All the annexures shall be submitted in soft copy.
7. The final copies of the text document to be submitted in 3 (three) hard bound copies in A4 size printable paper. The consents and certificates by the Lease holders/Qualified Person and copy of bank Guarantee shall be attached in hard copy of document. Three hard bound copies of plates/plans were also submitted. The plates/plans are to be output of AutoCAD software.
8. List of plates and annexures should be properly indexed with page nos. and in case of plates the scale should also be mentioned.

CHAPTER-1: GENERAL INFORMATION

1. The lease was executed on 26.06.2020 where as it has been mentioned on page no 4 is 27.06.2020. Reason for the difference may be elaborated.

CHAPTER-2: GEOLOGY AND EXPLORATION:

2. The reserve/resources has been reduced on the basis of evidences of new bore hole drilled in 2020-21, which may be described in relevant Para of reserve and resources estimation. The change in mineral reserve/resource in UNFC table of the draft document and the reserve/resource position as per the earlier approved mining plan needs to be clarified and corrected.

3. All the UNFC codes to be furnished in Geological Plan/sections as per MEMC Rule,2015.
4. Para 2.2.1.13: Bulk density of Iron Ore (2.5) & Manganese ore(1.68) are very low and seems incorrect. Fresh Bulk density study report is to be attached.
5. Para 2.2.4.13: Average grade of the Mineral Reserve & Resources to be mentioned.
6. Para 2.2.4.1: Recovery factor for insitu Manganese ore zone has been mentioned as 65%,which is high. The same may be rechecked and the report has to be annexed.

Chapter-3: Mineral Beneficiation:

7. Para 3.5.3: Product quality details of lump and fines to be furnished as per the format.

Chapter-4: Mining Operation:

8. The profile of benches in development plan not proposed correctly in view of scientific development. Direction of advance may be marked clearly.
9. Benches proposed in development plan are not matching with development sections. In the view of above, year wise tentative excavation also not matched. It may be rechecked and corrected.
10. Para 4.1.1: Existing Method of Mining should be described properly. Mining Method, Use of Machinery, Ore and waste transportation, dumping and other activities shall be explained thoroughly.
11. Para 4.1.2: Reason for proposed method mining to be rectified.
12. Para 4.2.2.1: Bench Parameter: The bench design should be justified and as per MMR, 1961. The copy of approval from DGMS for mining operation under regulation 106 of MMR should be submitted. Overall pit slope and slope angle of haul roads should be categorically mentioned.
13. Para 4.2.1.2.2: Mineral grade,quantity & status of the existing mineral stack should be mentioned.
14. Proposal for Method of working with calculation should be given block wise properly.
15. Para 4.3: Material Handling Summary: Slope stability study report has to be annexed..
16. Para 4.3.2: In situ Mining: Data furnished are mismatching. The whole table should be reconciled.
17. Para 4.4.1: Effective Shift Time has been mentioned as 30 minutes only. It may be clarified/
18. Para 4.5: Blasting and explosive requirement in Waste and development to be furnished.
19. Para 4.5.2: Total ROM proposed to be handled is to be rectified and accordingly the table to be revised.

Chapter 5 : Sustainable Mining:

20. Year wise proposal to be given in all aspects for development of community around the lease area. The cumulative work done / measures taken to be furnished.

Chapter 6 : Progressive Mine Closure Plan:

17. Para 6.2..3: Green belt Development: Table for cumulative work and year wise proposal are contradictory the same to be rectified.
18. Para 6.2.11: Land use of lease area at the expiry of the lease period to be reconciled.

Annexure

21. Singed copy of form-I & J to be submitted.
22. Environmental monitoring reports should be submitted.

23. Revised Bench wise/ RL wise calculation of proposed production during the next Four years should be enclosed in annexure.
24. Revised Feasibility report should be enclosed as per MEMC Rules 2015.
25. All the litho logs with chemical analysis of all the exploration work carried out till date should be submitted. The bulk density test report, recovery report etc. are to be enclosed.
26. A CD covering the entire document, annexures (in pdf format) and plates as per guidelines at the time of final submission. An undertaking in this regards by the qualified persons that CD contains same documents, annexures & plates as submitted by hard copy of document should be given.
27. Bank guarantee as per MCDR (Amendment), 2021 co-terminus to the plan period.
28. Certificate from qualified person regarding authenticity of information submitted is to be attached.

Plates

29. 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 of the plan at least twenty five centimeters long and suitably subdivided.
30. Processed output [digital elevation model (DEM) and Orthomosaic] images obtained from Drone Survey should be submitted.
31. All the plans should be submitted as hard copies and also soft copy of all plans and sections in KML/KMZ/SHP should also be submitted which were geo-referenced.
32. Key Plan: The key plan should incorporate all features as mentioned Rule 32(5) (a) of MCDR 2017. The prominent wind direction to be shown by rose diagram in key plan and other relevant plans. The approach road to the lease area should be shown with Co-ordinates of extremity of lease area. The adjoining mining leases, roads, villages, reserve forest boundary, predominant wind direction, within 5km should be prominently shown.
33. The DGPS plan and Lease plan submitted are not legible, a legible copy of the same to be submitted.
34. Surface Plan: All the boundary pillar coordinates to be given UTM. All the updated boundaries of Waste dump, Mineral reject dumps to be shown on the plan. Surface right area to be shown on the plan with different type of land schedules. All the features have not been shown in the index. Common boundary with other lessees should be shown on the plan. The Surface Plan should be prepared to satisfy the provision as laid down rule 32 (1) (a) of MCDR'2017.
35. Geological Plan & Section: (i) part geological plan and sections should be prepared on same scale i.e. 1:1000 (ii) UNFC codes needs to be furnished in geological sections and level of exploration boundary needs to be shown in geological plan.
36. Geo structural information has not been furnished adequately. (iii) Limit of estimation should be as per MEMC rule 2015. (iv) All the geological information to be furnished on geological plan and section based on drilled BH, exposed pit, trial pits etc with their configuration profile (dimensions) like depth. Section lines with nomenclature should be highlighted on the plan. The litho sequence should be shown as per the borehole logs data in the sections. The sections should be prepared on the same scale as prepared for plan.

37. Development plan & Section: (i) present pit profile configuration of benches with UPL to be shown with red color and proposed development benches of each year with some other color. All development section to be submitted for which development is proposed. The proposed yearwise development area boundaries should be clearly depicted. (ii) The layout of the haul road for present and future excavation proposal should be properly addressed in line with safe movement of fleet of the machinery.(iii) The proposed and existing bench mRL to be shown clearly over year wise development plan and sections. (iv)Geological information to be furnished on development plan and sections like litho units. v) Year wise mining plan proposals should be submitted in softy copy in the format of .kml or .shp file along with document.
38. Progressive Mine Closure plan and sections: All revised year wise proposals as per comments in PMCP chapter to be depicted on the plan and sections.
39. Conceptual plan and sections: the plan and sections should be prepared taking into consideration of the production from in-situ excavations, available reserves and resources describing the excavation, Disposal of waste, backfilling of voids, reclamation and rehabilitation measures, end of lease period etc.
40. Financial Assurance Plan : The block wise area should be mentioned in the plan.
41. Environment plan: The Environment Plan as prepared should be satisfy the provision as laid down rule 32 (5) (b) of MCDR'2017. Wind rose diagram should be depicted.
42. Mining Activity like existing quarry,dump,stack should be in form of closed polyline/polygon in submitted shp.file of submitted Surfaceplan,Year wise Development Plan & PMCP Plan .
43. Forest & Non forest area should be demarcated properly in the surface plan.
44. Area put to use for different activity shown in FA Table is not matched properly with the drawing. It should be rechecked & modified.
45. Shp file submitted for Geological plan is not opening,may be some back up files are missing. It should be resubmitted.

Annexure-I

<i>AT A GLANCE INFORMATION</i>	
1	<i>Name of the Applicant /lessee</i>
2	<i>IBM Registration no</i>
3	<i>Address of Applicant</i>
4	<i>Name of Mine</i>
5	<i>Minecode</i>
6	<i>Lease area in hecets.</i>
7	<i>Forest area</i>
8	<i>Name of Mineral</i>
9	<i>Lease period from to</i>
10	<i>Plan proposal period-</i>
11	<i>Mineral Reserve (111& 112) in tonnes</i>
12	<i>Mineral Resources (211, 221,222, 331, 332, 333&334) in tonnes</i>

13	Production proposal (1 st yr) in tonnes 2022-23 (Mineral Name)	
14	Production proposal (2 nd yr) in tonnes 2023-24	
15	Production proposal (3 rd yr) in tonnes 2024-25	
16	Production proposal (4 th yr) in tonnes 2025-26	
17	Production proposal (5 th yr) in tonnes 2026-27 (include only saleable/ usable & sub grade mineral)	
18	OB/Waste handling proposal 1 st yr CUM	
19	OB/Waste handling proposal 2nd yr CUM	
20	OB/Waste handling proposal 3rd yr CUM	
21	OB/Waste handling proposal 4th yr CUM	
22	OB/Waste handling proposal 5th yr CUM	
23	Present EC permission in tonnes (Mineral or ROM)	
24	Plantation proposal in five years in numbers	
25	Plantation area proposal in five year (ha).	
26	Back filling proposal in hecta in five years	
27	Check Dams numbers in five year	
28	Garland drain in meters five years	
29	Settling ponds (Numbers)	
30	Area put to use at end of five year in ha	
31	Bank Guarantee Amount Rs	
32	Validity of BG upto	
33	Any other important information	
34	Percentage of revenue sharing bid in case of auction grant of block	
35	Amount of performance security and details if any	