



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



BY EMAIL
Phone: 0674-2352463
Tele Fax: 0674-2352490
E-mail: ro.bhubaneshwar@ibm.gov.in
Plot No.149, Pokhariput
BHUBANESWAR-751020

No. MP/A/14-ORI/BHU/2021-22

Date: 27.10.2021

To

The Managing Director,
M/s Triveni Earthmovers Pvt Ltd,
HO: 22/110, Greenways Road,
Fairlands, Salem,
Tamilnadu-636016, laserda@triveni.com

Sub: Approval of Mining Plan of Laserda Pacheri Iron & Mn Block along with Progressive Mine Closure Plan (PMCP), over an area of 131.889 ha in Keonjhar district of Odisha State, submitted by M/s Triveni Earthmovers Pvt Ltd under Rule 16 of MCR, 2016.

Ref: - i) Your letter No. TEMPL/LP-MP/2021-22/30 dated 30.09.2021 received on 05.10.2021.
ii) This office letter of even no. dated 05.10.2021.
iii) This office letter of even no. dated 05.10.2021 addressed to Director of Mines, Government of Odisha copy endorsed to you.

Sir,

This has reference to the letter cited above on the subject. The draft Mining Plan along with Progressive Mine Closure Plan (PMCP) has been examined in this office based on earlier site inspection carried out on 20.10.2021 by Shri Dayanand Upadhyay, Senior Assistant Controller of Mines & Shri Kewal Krishan, Regional Mining Geologist. The deficiencies observed are enclosed herewith as Annexure-I.

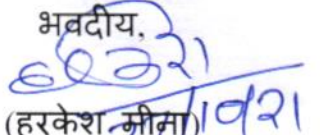
You are advised to carry out the necessary modifications in the draft Mining Plan in the light of the contents vide Annexure-I and submit:-

- (i) Three (3) firm bound copies of text in A4 size printable paper and plate/plan in hard copy. The consents and certificates by the Lease holders/Qualified Person and copy of bank Guarantee shall be attached in hard copy of document.
- (ii) Two (2) soft copies of the document in USB Pendrive. The soft copies of the document shall be digitally signed by the Qualified Person and Nominated owner. The text of document should be in excel(.xls) and 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.

The aforesaid final copies of the document will be submitted within **15 (Fifteen)** days from the date of issue of this letter, for further necessary action.


The para-wise clarifications and the manner in which the deficiencies are attended should invariably be given while forwarding the final copies of the Mining Plan. It may be

noted that no extension of time in this regard will be entertained and the 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

Copy for kind information and further necessary action to Shri Deepak Kumar Acharya, Qualified Person. dkaa@thriveni.com


(हरकेश मीना)

क्षेत्रीय खान नियंत्रक

Scrutiny comments of Mining Plan of Laserda-Pacheri Iron and manganese Block, Area-131.889 ha, Dist-Keonjhar of M/s Thriveni Earthmovers Pvt. Ltd.

General

1. On cover page address of the lessee with email, phone no. and lease area, forest area, year of proposal, IBM registration no, Mine code etc are to be furnished. The email and phone no. of qualified persons should also be furnished on cover page of hard copy.
2. 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.
3. 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.
4. The final soft copies of the document shall be digitally signed by the Qualified Person and Nominated owner.
5. 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.
6. 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 shall be attached in hard copy of document. Three hard bound copies of plates/plans are also to be submitted. The plates/plans are to be output of AutoCAD software.
7. 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

8. Para-1.1, it is to be mentioned that the proposed 5 years plan period will be implemented from with the date of lease deed execution.
9. Para-1.1.2, the LOI no. is to be mentioned as per the letter received from State Govt.
10. Para-1.3.5, the location of boundary are to mentioned in terms of latitude and longitude as per DGPS plan authenticated by State Govt.
11. Para-1.3.7, the experience of qualified person should be clearly stated in supervisory capacity in the field of mining as per provision of rule 15(b) of Minerals (Other than Atomic and Hydro Carbons of Energy Minerals) Concession Rules, 2016.

CHAPTER-2: GEOLOGY AND EXPLORATION:

12. Para 2.1.1: The topography of the lease is to be mentioned as discussed during field visit.
13. Para -2.1.4.2, the structure of the area is to be described with reference to the lease area. The dip and strike of the formation is to be furnished.
14. Para- 2.1.4.3, thickness of various litho units as encountered in the bore holes is to be furnished i.e minimum and maximum thickness.
15. Para- 2.1.4.8, the strike/trend of the ore body is to be furnished correctly.
16. Para- 2.2.1.5, the depth of the trial pit along with other details as mentioned in the table are to be furnished.
17. Para 2.2.1.7, total no. of bore holes are not correctly furnished. The copy form -I and form-J of all the bore holes drilled is to be enclosed as separate annexure.
18. Para- 2.2.1.10, details of total sample collected from bore holes as analyzed from NABL accredited/Government Laboratory should be attached in separate annexure as per table prescribed.

19. Para- 2.2.1.13, the bulk density as furnished in table should be justified with documentary proof with their methodology and enclosed in annexure. The bulk density of density of OB/waste has not been furnished in the table.
20. Para- 2.2.1.14, the level of exploration in the area proved non mineralised is to be given in bracket.
21. Para-2.2.3, the ore body geometry and grade is to be discussed properly in prescribed table.
22. Para-2.2.4.1, the parameters like recovery, threshold value, cut- off grade etc should be clearly properly elaborated.
23. Para-2.2.4.2, the resource estimation should be revised as discussed during field, grade wise for iron ore i.e 45 to 55% Fe and +55% Fe and for manganese ore 10-25%Mn and +25%Mn are to be furnished at all the relevant places of the document.
24. Para-2.2.4.2, the range of depth is to be furnished in the column and all other related places of the document.
25. Para-2.2.4.3 to 2.2.4.10, all the parameters are to be elaborated in details as per Minerals Evidence of Mineral Contents Rules 2015.
26. Para-2.2.4.11, it is observed that on the section DD' (sr. no.-6) is considered for blocked resources of manganese ore whereas in section it is shown iron ore. All the sections are to be re-checked and corrected. Further the blocked resources should be revised considering the public road, power line etc. Accordingly the categorization of reserve/resources is to be revised at all the relevant places of the document.
27. Para-2.2.5.5, proposed year of exploration is not correctly furnished. The proposed Bore Holes should be furnished in light of provision of Rule 12(4) of MCDR, 2017 to prove the lease area in G1 level. Para-2.2.5.7, the table is to be corrected

Chapter-3: Mineral Beneficiation:

28. Para-3.1, the mineralogy of ROM/mineral is to be furnished as per the report carried out if available.
29. Para-3.3.1 & 3.3.2, the range of product size are to be furnished. Para-3.3.3, the columns are to be correctly furnished.
30. Para-3.10, the flow sheet of proposed dry screen plant are to be attached along with detail study report.

Chapter-4: Mining Operation:

31. Para-4.1.2: Proposed features of Method of Mining should be described in brief in prescribed table along with justification of site selection..
32. Para-4.2.1.1: The details of existing old pits are not correctly furnished in terms of Pit ID, Pit status, area covered by pits in ha and Pit dimensions.
33. Para-4.2.2.1 & 4.2.2.2: Bench Parameters and Year wise Opencast Development as furnished in prescribed table should be re-checked and corrected. Pit nomenclature should be furnished correctly.
34. Para-4.2.2.2, the information in table on development direction, top soil and co-ordinates of location are not furnished in the table. The generation of top soil should be furnished at all the relevant tables in the document.
35. Para-4.3: In Material Handling Summary, the annexures enclosed are marked with annexure number.
36. Para-4.3.2, in insitu mining table, the tables are to be furnished for iron and manganese ore separately.
37. Para-4.4: In Machine Calculation, the parameters of total handling (Ore and OB), bucket capacity, fill factors, swell factor, idle time and standby etc are to be considered.

38. Para-4.5.1: Blasting & Explosive Requirement in Waste/Development, the powder factor is not correctly furnished. Para-4.5.2: Blasting & Explosive Requirement in Mineral / Ore, the type of explosive and type of explosive is to be used are not correctly furnished. The figures furnished in table are also miss-matched. It is to be re-checked and corrected.
39. Para-4.6.6: In No. of Persons Engaged Per Day, the table is left blank. Need correction.
40. Para-4.7.4: year wise total stack quantity are to be furnished.

Chapter 5: SUSTAINABLE MINING:

41. Para-5.2: In year wise CSR initiatives, the specific year wise proposal should be furnished. At the places where proposal is not furnished should be marked as nil and no any place left blank.

Chapter 6: PROGRESSIVE MINE CLOSURE PLAN

42. All the prescribed tables are to be furnished with desired information otherwise it is clearly mentioned as not applicable.
43. Para-6.2.1: In year wise backfilling, the estimated expenditure is not mentioned. The top and bottom RL are to be re-checked from year wise development plan and sections
44. Para 6.2.2.2 & 6.2.2.3: Retaining wall and garland drains proposals are to be revised in light of back log of previous year proposal as discussed during field visit.
45. Para-6.2.9.2, year wise estimated expenditure are not furnished in table.
46. Para-6.2.11, Land use of lease area at the expiry of lease period (CONCEPTUAL STAGE) are not correctly furnished. It should be furnished 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".

Chapter 7: FINANCIAL ASSURANCE/ PERFORMANCE SURETY

47. Para-7.1: in year wise table of land use pattern, the existing degraded land should be marked as old pit.
48. Para-7.2: Total Area Proposed to be put to use in hect is to be furnished. Para-7.3, Total Resources in tonnes for calculation of Performance Surety is to be furnished.

CHAPTER-8: IMPACT ASSESSMENT (for fresh grant)

49. Para-9.3.2 & 9.3.2.2, the land environment and anticipated impact under prescribed tables have not been discussed properly.
50. Para-9.3.3.2 & 9.3.5.4., in air quality and noise details for base line information, season is to be mentioned in the table.
51. Para-9.3.5.3, the measures to minimize the impact on receiving environment, to control the dust generation has not been discussed.
52. Para-9.3.7.1, the details in the demographic profile table are not furnished.

Annexure

1. Geological report vetted by State Govt., copy of LOI and all other necessary required document are to be submitted.
2. Singed copy of form-I & J to be submitted.
3. All the lithologs with chemical analysis of all the exploration work carried out till date should be submitted.
4. Copy of Declaration of Owner/Nominated Owner in case of Company/partnership firm, Copy of Registration of Company (RoC)/Partnership firm (Registration) & Deed, ID & Address Proof of Owner/ Nominated Owner are to be submitted.
5. Calculation of insitu tentative excavation year wise considering the cross-sections, Bench RL etc should be furnished.

6. Experience & Qualification Details of Qualified Person and Certificate from qualified person regarding authenticity of information submitted.
7. The pre-feasibility report is to be submitted as it is not enclosed along with draft mining plan. The content of pre-feasibility report and analysis of economic viability of the project is to be described in detailed as per rule 16 and Part-V of MEMC Rule 2015 and enclosed in annexure. The economic viability of the project should be supported with NPV, IRR, Payback period by cash flow chart with total investment, operational cost etc.
8. Copy of lease deed executed, Copy of MDPA, Copy of Performance Surety, Mineral processing flowsheet with stage wise recovery, Copy of Environment and Forest Clearance, Consent to Establish, Consent to operate if any are to be enclosed.

Plates

9. Date of survey should be given on all plans and sections and signature should bear date of signature. All plans and sections should be signed with date by certified Surveyor, Qualified Person, Mine Manager, Mining Engineer and Mining Geologist as per provisions of MCDR, 2017 and MMR, 1961. All plans and sections shall show a scale a scale of the plan at least twenty five centimeters long and suitably subdivided.
10. All plans and sections should be prepared on UTM grid. Copy of Scale relaxation as per provision of MCDR 2017 should be enclosed.
11. 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.
12. Lease Cadastral Plan and Geo referenced Cadastral Plan authenticated by State govt.should be submitted. Progressive Mine closure plan and sections should be submitted.
13. 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, should be prominently shown.
14. Surface Plan: The Surface Plan should be prepared to satisfy the provision as laid down rule 32 (1) (a) of MCDR'2017. All the boundary pillar coordinates to be given in UTM . All the surface features are to be shown and marked in the index.
15. Geological Plan & Section: Geo structural information has not been furnished adequately. The lithological features shown in geological cross section are to be matched with geological plan. Geological plan and sections are to be in same scale. Revised future exploration proposal should be furnished in plan and sections under G1 level of exploration and proposed bore holes are to be depicted in sections.
16. Development plan & Section: Development plan and sections are to be same scale. The proposal of Dump-2 should be revised as discussed during field visit. The top and bottom RL of the dump are to be furnished. In development plan the proposed RL of the benches and haul road should be clearly mentioned. Year wise development sections are to be furnished separately. Before backfilling it is to be ensure that the area should be completely exhausted. The backfilling proposal should be shown in different color year wise in plan and sections. Profile of development plan and sections should be matched with bore holes logs. Surface profile Development and sections are not matched with geological plan and sections. A centralized processing unit proposed in place of different places of processing. In development plan and sections safety zone should be marked considering the PWD road and power transmission line. Location of top soil is to be proposed. Pit slope and bench slope as proposed in not matched with development sections.

Backfilling topography should be matched with original topography. Year wise mining plan proposals should be submitted in softy copy in the format of .kml or .shp file along with document.

17. Conceptual plan and sections: Conceptual plan may be prepared considering mineralization as revealed from the borehole logs considering the life of mine as guidelines.
18. 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 and contours within 60m periphery should be depicted.
19. Financial Assurance Area Plan: The existing and additional area requirement year wise as furnished in text should be separately hatched on the plan with FA table.

Kawal's/aw
(KEWAL KRISHAN)
RMG

D.
26.10.21
(D. UPADHYAY)
Sr. ACOM