

## 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



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

No. RMP/A/39-ORI/BHU/2021-22

Date: 07.03.2022

To

Shri Rudrasen Sindhu, Mine Owner, At- Rohtak Engineering Works, Main Road, Po-Barbil, Dist-Keonjhar, Odisha-758035

Sub: Approval of Review of Mining Plan of Bhanjapalli, Teherai and Koira Manganese Mine along with Progressive Mine Closure Plan (PMCP), over an area of 65.71ha in Sundargarh district of Odisha State, submitted by Shri Rudrasen Sindhu under Rule 17 of MCR, 2016.

Ref: - i) Your letter No. 001/01/2022 dated 03.01.2022 received on 16.02.2022.

ii) This office letter of even no. dated 16.02.2022.

Sir,

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 based on earlier site inspection carried out on 24.02.2022 by Shri Sanjib Kumar Mohapatra, Senior Mining Geologist and Shri Jitendriya Pradhan, Assistant Mining Engineer. 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 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 and .dwg format. All the annexures shall be submitted in soft copy.
- (iii) Financial assurance under Rule 27 of Mineral Conservation and Development (Amendment) Rules, 2021.

The aforesaid final copies of 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 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,

(बाबुलाल गुर्जर)

क्षेत्रीय खान नियंत्रक

Copy for kind information and further necessary action to Shri Chandrabhanu Das, Geo Consultants Pvt. Ltd, 853, Gobind Prasad (Medical Lane), Mahavir Nagar, Laxmisagar, Bhubaneswar - 751006.

(बाबुलाल गुर्जर)

क्षेत्रीय खान नियंत्रक

Copy for kind information to the Controller of Mines (EZ), Indian Bureau of Mines, CP-13, Sector V, Salt Lake City, Kolkatta-700 091.

(बाबुलाल गुर्जर) क्षेत्रीय खान नियंत्रक Scrutiny comments for Review of Mining Plan along with Progressive Mine Closure Plan in respect of Bhanjapalli, Teherai & Koira Manganese Mine, over an area of 65.71 Ha. in Bonai Tahsil, Sundargarh District of Odisha State of Sri Rudrasen Sindhu

#### PART-A

#### **CHAPTER-1: GENERAL INFORMATION**

- 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.
- An introduction with a brief history of the mining lease area depicting all instances to be given. A format of summary at glance needs to furnished, the copy of the same is enclosed as annexure.
- 3. E\_mail id of the qualified person is to be furnished in cover page. The cover page needs to be prepared as per the format enclosed herewith as annexure.
- 4. Under para 1.1 the details of Tehsil/Taluka furnished in text document is not correct. The same need to be rectified wherever is applicable.
- 5. The information furnished under para 1.2; Land ownership details: The land schedule furnished are not matched as per the prescribed format of mining plan. The same to be rectified and complete information needs to be submitted as per lease deed.

## CHAPTER-2: GEOLOGY AND EXPLORATION:

- 6. The details of Physiographic features and infrastructures under Para 2.1.2 available in and around the lease area are not correct. The same needs to be reproduced properly.
- The detailed information under para 2.2.1.9 & 2.2.1.10 are not furnished properly. The
  details of location & sample id of the borehole samples need to reviewed and reproduced
  properly.
- 8. The information furnished under para 2.2.1.13 i.e. Analysis report from NABL i.r.o. bulk density study needs to be furnished and method adopted for calculating bulk density needs to be furnished.
- 9. The detailed information under para 2.2.2.5.1, 2.2.2.8 & 2.2.2.10 (before last plan period); as the lease deed was executed on 11.01.2017, question of before last plan period does not arise. The furnished detail needs to be reproduced properly.
- The information furnished under para 2.2.1.14. i.e. area covered under exploration is incorrect. The same needs to be removed.
- 11. The information furnished under para 2.2.3 ore body geometry and grade; furnished average grade is not corroborating with the furnished borehole log sheets. The same needs to be rectified and furnished properly.
- 12. The detailed information under para 2.2.4.1 i.e. methodology for reserve/resource estimation; recovery percentage of saleable and mineral reject has been considered as 100%. Copy of the analysis report of recovery percentage needs to be furnished.
- 13. The information furnished under para 2.2.4.2 i.e. resource calculation table; in all sections the resource has been estimated with 100% recovery of Mn ore, which may not be acceptable as per the bore hole analysis. Hence the resource calculation table needs to be reproduced properly in line to the comments furnished for recovery percentage.
- 14. The detailed information under para 2.2.4.3 to 2.2.4.10 has not been furnished viz., threshold value and cut off parameters, mining factors, UNFC justification under classification, etc.,. The same needs to be furnished. Proper UNFC codes should be assigned for reserves/resources. The reserve and remaining resources needs to be codified based on the present status of UNFC.

- 15. The details furnished under para 2.2.4.11 & 2.2.4.12, blocked resource & reserve calculation table needs to be reproduced in line to the comments furnished for resource calculation table. The same needs to be rectified & reproduced properly. Accordingly table furnished under 2.2.4.13 needs to be rectified.
- 16. The future exploration programme needs to be proposed as per Rule 12(3) of MCDR 2017 i.e. the entire potentially mineralised area under the mining lease should be explored under G1 level of exploration. The depth of the proposed exploration should be upto 300m /end of mineralisation, whichever is earlier. The details of location bore holes under proposed exploration needs to be furnished under para 2.2.6.5.1.
- 17. Proposal for a petrology & mineralogical study of the lease during the review of mining plan period needs to be proposed under para 2.2.6.8

#### CHAPTER-3: MINERAL PROCESSING

- Copy of the analysis report in support of the information furnished under para 3.1 & 3.2 needs to be furnished.
- 19. The information furnished under para 3.9: Overall water requirement of mining; The water balance chart should be submit as annexure.

#### **CHAPTER-4: MINING OPERATIONS**

- 20. The information under para 4.1.1 & 4.1.2 i.e. existing method/proposed method of mining needs to be furnished properly.
- 21. The information under para 4.2.2.2: Year wise opencast Development; recovery percentage has been furnished 100%. Further generation of main and mineral rejects has been furnished. The same needs to be rectified and reproduced properly. Accordingly the ore to OB ratio needs to be reviewed. The year wise, section wise calculation of Ore and OB to be submitted in annexure.
- 22. Under para 4.3.1, bulk density study report and recovery study report and also any other related study reports should be proposed.
- 23. The details furnished under para 4.4.5.3 capacity of drilling machine to be mentioned.
- 24. The details furnished under para 4.5.2 details of type of explosive to be used needs to be furnished properly.
- 25. The details furnished under Para 4.9: Use of Minerals: complete details of chemical specification needs to be furnished.
- 26. As Govt. ITI school is exists within the lease area, safety barrier zone needs to be left as per the rules and all safety precautions need to be taken care during mining in the proximity of Govt. ITI school. An undertaking from the lessee in this regard also needs to be annexed.

#### CHAPTER-5: SUSTAINABLE MINING:

27. Para-5.2: In year wise CSR initiatives, Year wise proposal to be given in all aspects for development of community around the lease area.

### CHAPTER-6: PROGRESSIVE MINE CLOSURE PLAN

- 28. Details furnished under para 6.1 i.e. area degraded is contradicting to the details furnished under para 4.2.1 i.e. inventory of existing pit. The same needs to be rectified and reproduced properly.
- 29. Para 6.2.2.2.1, 6.2.2.2.2 & 6.2.2.2.3; The year wise fencing proposal in view of ML boundary to be proposed. The protective measures i.e. retaining wall and garland drain also to be proposed year-wise.
- 30. Para-6.2.11, Land use of lease area at the expiry of lease period (CONCEPTUAL STAGE) 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 SECURITY

31. Details of Bank Guarantee furnished in the text document needs to be removed as Bank Guarantee is not applicable for this lease. Further details of performance security needs to be furnished properly as per the prescribed format.

#### CHAPTER-8: REVIEW OF PREVIOUS PROPOSAL

32. The reason for deviation of the earlier proposal needs to be furnished with specified quantity/nos along with proper supporting documents.

#### CHAPTER-9: IMPACT ASSESSMENT

33. Although this chapter is for fresh grant as per the prescribed format; all the para-wise information needs to be furnished in the text along with supporting documents as required.

#### PART-B

#### ANNEXURES

34. The pre-feasibility report is to be submitted with the content of 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 IRR by cash flow chart with total investment, operational cost, final price offer etc.

#### PART-C

#### PLANS AND SECTIONS

- 35. All the plans and sections needs to be captioned with review of Mining Plan and period of review of Mining Plan also needs to be furnished.
- 36. All plans and sections should be signed with date by Qualified Person. All the plans should be submitted as hard copies and also soft copies in KML/KMZ/SHP/.DWG as prescribed in the templates. All the plans and sections are needs to be prepared on UTM grid.
- Key Plan: Key plan has not been submitted. The key plan should incorporate all features as mentioned Rule 32 5 (a) of MCDR 2017.
- 38. Surface Plan: (i) the lease area and existing features shown in the surface plan are not matching with lease map and DGPS map. (ii) Contours and existing benches are shown in similar colour codes. (iii) OB dumps and existing stacks needs to be demarcated properly (iv) All features shown in the surface plan needs to be properly indexed. (v) The village road passing within the southern side of the lease area has not been shown properly. (vi) Safety barrier for the Govt. ITI school exists within the lease area as per rule needs to be shown. Hence the area needs to be surveyed properly and surface plan needs to be prepared accordingly.
- 39. Geological Plan & Section: (i) Geological plan needs to be prepared considering the scrutiny point furnished in surface plan. (ii) Litho units need to be shown in distinguishable colour codes. (iii) UNFC codes needs to be furnished in geological sections and level of exploration boundary needs to be shown in geological plan. (iv)Forest/Non-forset boundary need to be shown in the geological sections. (v) The Geological Plan should be prepared as per the extant provision as laid down rule 32 (1) (b), (c) and (d) of MCDR'2017.
- 40. Development plans& Section: (i) The top and bottom RL of proposed benches and proposed dump are to be furnished in development plan. (ii) The proposed haul road along with ramps needs to be shown in all year-wise development plans and sections (iii) The proposed RL of the benches and haul road should be clearly mentioned (iv) year-wise development plans and sections are to be shown in distinguishable colour codes.
- 41. Progressive Mine Closure plan and sections: Progressive Mine Closure plan and sections need to be prepared to show the status of the mine i.e. pits, dumps infrastructures, void filling if any and protective measure feature within the lease area within the proposed plan

- period. The details of plantation and protective measures needs to be shown detailed in a tabular form. The proposed AAQ monitoring station within the core area needs to be shown. Further the plan and section needs to be shown as per comments in PMCP chapter.
- 42. Environment plan: predominant wind direction has not shown. Existing AAQ monitoring station if any needs to be shown. The Environment Plan to prepared as per the provision as laid down rule 32 (5) (b) of MCDR'2017. All the proposed features need to be removed from the environment plan.
- 43. Conceptual plan and sections: The submitted plan and sections are not correct. 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 etc. at the end of lease period.
- 44. Financial Assurance Area Plan: the plan needs to be prepared on the revised surface plan and proposal thereon. The area degraded due to mining and allied activities are to be considered in FA calculation.

# Format for preparation of Mining Plan/Modified Mining Plan/Review of Mining Plan (Open Cast) COVER PAGE

Minin	g Plan /Re	view of	Mining P	lan / Mo	difications	in Approve	ed Mining Pla	n of		
Mine	/ Deposit	over an	area of	ha s	ubmitted u	nder Rule	16(1)*/17(2)	*/17(3)*	of Minerals	(Other
than	Atomic an	d Hydro	o-Carbons	Energy	Minerals)	Concessio	on Rules, 2016	i.		

A4: / D	
Mine/ Deposit Name-	
Mining Lease no-	
MineCode-	
In Villages-	
Tehsil-	
District-	
State-	
Total-Lease area-	
Forest Area-	
Non Forest area-	
Lease period-	
Mineral-	
Proposed category of Mine-	
Mining plan period-	
Working proposal period-	
Applicant/lessee-	
IBM Registration no-	
Address -	
Phone-	
Email-	
Prepared by-	
Qualified Person Name-	
Address-	
Phone-	
Email-	
	-

	AT A GLANCE INF	ORMATION			
1	Name of the Applicant /lessee				
2	IBM Registration no				
3	Address of Applicant				
4	Name of Mine				
5	Minecode				
6	Lease area in hects.				
7	Forest area				
8	Name of Mineral				
9	Lease period from to				
10	Plan proposal period-				
11	Mineral Reserve (111& 112) in tonnes				
12	Mineral Resources (211, 221,222, 331, 332, 338, 334) in tonnes				
13	Production proposal ( 1 <sup>st</sup> yr) in tonnes 2022-23 (Mineral Name)				
14	Production proposal (2 <sup>nd</sup> yr) in tonnes2023-24				
15	Production proposal (3 <sup>rd</sup> yr) in tonnes2024- 25				
16	Production proposal (4 <sup>th</sup> yr in tonnes2025-26				
17	Production proposal (5 <sup>th</sup> yr) in tonnes2026-27 (include only saleble/ usable & sub grade mineral)				
18	OB/Waste handling proposal 1 <sup>st</sup> 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 hects 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		

## INTRODUCTION