



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. FMCP/FM/01-ORI/BHU/2018-19

Date: 20.04.2018

To

Shri M D Rustagi,
Director & Nominated Owner,
M/s Bonai Industrial Co. Ltd,
Rungta Office, Main Road, Barbil,
Keonjhar, Odisha- 758035

Sub: Approval of Final Mine Closure Plan of Teherai Iron & Mn Mine over an area of 137.46 ha in Sundargarh district of Odisha State, submitted by M/s Bonai Industrial Co. Ltd under Rule 24 of MCDR, 2017.

Ref: - i) Your letter No. BICO/ED/GEO/2017-18/1127 dated 12.03.2018 received on 21.03.2018.
ii) This office letter of even no. dated 21.03.2018.
iii) This office letter of even no. dated 21.03.2018 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 of Final Mine Closure Plan (FMCP) has been examined in this office based on site inspection carried out on 12.04.2018 by Shri Dayanand Upadhyay, Sr. Assistant Controller of Mines. The deficiencies observed are enclosed herewith as Annexure I.

You are advised to carry out the necessary modifications in the draft Final Mine Closure 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 CD in a single MS Word file (the drawing/plates in Auto CAD compatible format or JPG format in resolution of 100x100 pixels on same CD)** of the Final Mine Closure 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 Final Mine Closure 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 Final Mine Closure Plan. It may be noted that **no extension of time in this regard will be entertained and the Final Mine Closure 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 / yours faithfully,

(HARKESH MEENA)

क्षेत्रीय खान नियंत्रक / Regional controller of Mines

Scrutiny comments on examination of FMCP (lease expiring on 31/03/2020)of Teherai Iron and Manganese Mine of M/s Bonai Industrial Co. Limited

GENERAL:

1. Lease number and lease period since execution of lease should be furnished covered on cover page.
2. Breakup of forest and non-forest area is not matched with total lease area as furnished. It is to be re-checked and rectified.
3. The compliance of conditions imposed while execution of lease deed approval of mining plan, MOEF, SPCB may be submitted with remarks if any deficiency observed. The relevant document may be attached as annexure.
4. All the annexure to be properly numbered/paged and signed by the QP.
5. Recent photographs of pits, dumps, afforestation and reclamation and rehabilitation carried out should be enclosed.

Text :

6. Page1-4, the grade of ROM, clean/saleable ore and mineral reject should be furnished in remarks column. Further the proposal furnished in table i.e handling of waste, area utilization, stacking and environmental protective measures should be in line with the latest approved document.
7. Page-5, the balance reserve/resources as on 01/04/2018 has not been furnished separately for forest and non-forest area as per guidelines.
8. Page-9 &10, the fax and e-mail of directors have not been furnished. The experience of qualified persons as mentioned should be marked annexure. Para 3.0, the lease period and their subsequent renewal is not furnished in correct order and also not matched with date as furnished on cover page. Postal address of the mine is not correctly furnished.
9. Page-12, the co-ordinates of corner boundary pillars should be furnished in terms of latitude and longitude with UTM co-ordinates.
10. Page-15, the updated information of the exploration as on 01/04/2018 for the year 2017-18 to be furnished.
11. Para 5.3, proposal of location of development of new pit has not been furnished. All the achievement as furnished against the proposals should updated as on 01/04/2018. Para-5.5, quantity of overburden/waste is not furnished as per guideline in terms of OB/waste excavated, backfilled, dumped.
12. Para-5.7, quantity of mineral reject is not furnished as per guideline in terms of mineral reject generated, utilized and stacked.
13. Para-5.20, backfilling of mined out area has not been furnished yearwise with breakup of volume and area in ha. Para-5.21, plantation proposed and carried out has not been furnished separately in virgin area, backfilled area, dumps, ultimate benches etc. Para-5.22, grid value of settlings ponds is not furnished. Para-5.28,

area proposed to use and actual has not been furnished with breakup of forest and non-forest land as per guidelines. Sequence of filing should be same as per original sequence of the litho units occurring in the lease area.

14. Para-6.1, physiography has not been dealt with highest and lowest contour above MSL in the lease area. The direction of flow of seasonal nallah, ground water table and their seasonal fluctuation, existence perennial water course from the lease area, relative humidity and prominent wind direction should be furnished in relevant para.
15. Para-6.5.5, total lease area explored under different categories is not furnished in forest and non-forest and reason of 20.888ha unexplored area is not furnished. On the basis exploration carried out during 2017-18, explored lease area has not been updated and chemical analysis from NABL accredited lab has not been furnished.
16. As per new guidelines para-6.6.2, 6.6.3 & 6.6.5 are omitted and para-6.6.4 is modified. Therefore information should be furnished accordingly as per new guidelines as below:

Sr no.	Modifying factor	Brief details of the applicable factors causing blockage of resources	Blocked resources (in T)	UNFC category
1	Technical factors			
2	Statutory factors			
3	Market or economy related factors			
4	Others			
Total Blocked Resources (in T)				

17. Para- 6.9 are omitted as per new guidelines and reserve and resources to be shown separately for forest and non-forest area.
18. It has been observed that 105 nos. bore holes have drilled during 2017-18, therefore enhancement of reserve & resources may be updated on the basis of exploration carried out.
19. It has been observed during inspection that about 20.0 ha area lying in forest is unexplored. Therefore a future exploration program should be proposed as per provision of rule 12(4)(A) of MCDR 2017. A bar chart indicating timeline for implementation of proposed exploration activities should be enclosed.
20. Brief details regarding preservation of cores obtain while exploration within the lease area should be given. No cores should be destroyed without the permission of Chief Controller of mines. As per rule 63(4) of MCDR 2017, the cores should be stored serially with suitable indexing and cataloguing and shall insure submission of cores as per the manual issued by GSI from time to time.
21. Para-7.2, specific year to be mentioned in column. Dump re-handling has not been specified for iron/manganese ore. Para-7.3, production at a glance bulk density should be furnished in foot notes. Para-7.4, bench parameters should in terms of

mRL, bottom RL proposed during closure should be quarrywise. Para-7.5, type of dumpers and its capacity have not been furnished.

22. Para-9.1, the grade of mineral reject of manganese ore in last row of table is mentioned 55%. It is to be re-checked and corrected. Para-9.1, table no.-3, details of top soil and waste/OB disposal/management during the closure period of two years should be furnished in revised format as below:

Year	Top soil (cu.m)		OB/Waste (cu.m)	
	Top soil reuse	Top soil storage	Backfilling	Dumped
I				
II				
Total				

23. Para-9.2. Briefly describe the proposed dumping ground within lease area be proved for presence or absence of mineral with reference of bore holes data.
24. Para-11, baseline information about the area should be described on the basis of information incorporated in first approved mining plan at the time of grant of ML .
25. Para11.2.1, the chattan pit and new pit have been proposed for backfilling and reclamation and rehabilitation but it has been observed during inspection that plantation over backfilled area has not been started. Therefore detailed reclamation and rehabilitation program of backfilled area should be proposed. The proposals may be supported with yearly plans and sections depicting yearly progress in the activities for land restoration/reclamation/rehabilitation, afforestation etc called “Reclamation Plan”.
26. Para11.2.2, describe the proposals to be implemented for securing the excavation/pits/mineralized dump or mineral rejects stacks/fine stacks by means of fencing etc. Explain the safety measures implemented to prevent access to surface openings, excavations etc. The lessee should ensure fencing of any excavation endangering fall of persons/cattle etc in terms of rule 26 of MCDR2017. The proposal may be supported with yearly plans and sections depicting yearly progress in the activities for protective measures like fencing etc called “Reclamation Plan”.
27. Para11.2.7, all the active dumps should be proposed with extension of retaining wall and garland with settling tanks with proper terracing and stabilization of slope. The dead dumps should be proposed for fully rehabilitation by plantation and with gap plantation if necessary. The proposed and existing retaining wall, garland drain and settling tanks should be clearly marked yearwise on reclamation plan.
28. Para-11.2.11, the details of existing infrastructure available in the lease area should be furnished in tabular form and their present value after depreciation. Further their future utilization should be evaluated on case to case basis. The decommissioning cost and final value of the decommissioned infrastructural facilities if any may be

- furnished. Para-11.2.12, decommissioning of mining machineries and their possibility of post mining utilization if any may be described.
29. Para-11.2.14, the economic repercussions due to closure of mine has not been explained properly. Envisaged repercussions on the expectation of the society due to closure of mine. Number of local residents employed in the mine, compensation, satellite occupations should be describe considering the impact of closure of mines.
 30. Para11.2.15, time scheduling for abandonment of mines considering the activity like waste dump management (Garland drain, retaining wall, settling tanks plantation), safety and security (fencing of pits, dumps etc), Disposal of machineries, reclamation & re-habilitation, infrastructure, protective measures of environment should be supplemented by PERT or Bar chart and these activities should be clearly shown on reclamation plan.
 31. Para11.2.16, abandonment cost as furnished in tabular form has not includes the safety measures implemented to prevent access to surface openings, excavations etc. The cost of maintenance, security and supervision has also been not included.
 32. Para-11.3, the information on protective measures has not been furnished as per format prescribed in guidelines with break-up of forest non-forest area. Para-12 may be omitted as per new guidelines.

Plates:

33. An updated surface plan with latitude, longitude of all corner pillars should be furnished. Few pillars may be correlated with some permanent ground features giving distance and direction.
34. An updated Geological plan and sections considering the exploration carried out in proposed period plan upto 01/04/2018 should be furnished. The geo-structural information like strike, dip, dip-direction etc to be shown clearly.
35. The mineralised area should be shown distinctly on geological plan and sections. Different level of exploration like G1, G2, G3 etc in line with MEMC rule 2015 to be depicted on geological plan and UNFC codes should clearly furnished in sections.
36. Proposals of land restoration/reclamation/rehabilitation, afforestation, waste dump management, safety and security etc. should be depicted in Reclamation Plan year wise with different colour codes. The engineering drawing of proposed fencing wall with measurement and sketches of retaining & garland wall, settling pond should be furnished.
37. Environment Plan, natural drainage systems such as water course, streams, nalla, river, Forest with tree density, waste land, agricultural land, grazing land and surface features of 500 buffer zone should be shown.