

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/41-ORI/BHU/2018-19

विनांक / Date: 29.08.2018

To

Shri M. D. Rustagi, Director & Nominated Owner, M/s BICO Limited, Rungta Office, Main Road, Barbil, Dist-Keonjhar, Odisha – 758035.

Sub: Approval of Final Mine Closure Plan of Nadidih Iron & Mn. Mines over an area of 73.855 ha in Sundargarh district of Odisha of M/s BICO Limited submitted under Rule-24 of Mineral Conservation and Development Rules, 2017.

Ref: - i) Your letter no. BICO/ED/GEO/2018-19/188 dated 18.08.2018 received on 23.08.2018.

- ii) This office letter of even no. dated 23.08.2018.
- iii) This office letter of even no. dated 23.08.2018 addressed to the Director of Mines, Govt. of Odisha, copy endorsed to you.

Sir,

This has reference to the letters cited above on the subject. The draft Final Mine Closure Plan (FMCP) has been examined in this office based on earlier site inspection carried out on 13.04.2018 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 <u>Annexure-I</u> and submit <u>three (3) firm bound and two (2) soft copies of the document text in CD in a single MS Word file (the drawing/plates should be submitted in Auto CAD compatible format and JPG format in resolution of 100x100 pixels on same CD) 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</u>

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

Copy for kind information and necessary action to:

 Shri H. S. Biswal, Shri G. K. Sah & Shri L. Sahoo, Qualified Person, M/s BICO Limited, Rungta Office, Main Road, Barbil, Dist-Keonjhar, Odisha – 758035.

> (HARKESH MEENA) क्षेत्रीय खान नियंत्रक / Regional Controller of Mines

Scrutiny comments on examination of FMCP (lease expiring on 31/03/2020) of Nadidih Iron and Manganese Mine, 73.855ha of M/s Bonai Industrial Co. Limited

General:

- 1. Any legal issues pending in connection with the lease or PIL/court cases etc should be mentioned under the statutory obligation. If any special conditions imposed or any directive issued or any statutory or prohibitory order passed by any authority or court of law; describing the nature of conditions, prohibitions and compliance position. The relevant document may be attached as annexure.
- 2. Annexures have not been enclosed as per guide lines of "IBM Manual for Appraisal of Final Mine Closure Plan". All the annexure to be properly numbered/paged and signed by the QP.
- 3. Recent photographs of pits, dumps, afforestation and reclamation and rehabilitation carried out should be enclosed.

Text:

- 4. Para-1.4.1 to 1.4.29, since the proposal of modification of review of mining plan coincides with proposal of FMCP the tabular information may be omitted.
- 5. Para-2.1, briefly describe the topography and general geology indicating rock type available, structural feature, mode of occurrence etc.
- 6. Para-2.3, the date of estimated balance mineral reserve/resources and their bifurcation of forest and non-forest area should be in line with the latest approved document. Para-2.4, the future exploration program to fulfill the provision of rule 12(4A) of MCDR 2017 has not been described.
- 7. The gist of proposed exploration may be given in the following table.

Year	Number of BH proposed			
2018-19	Diverted forest area	Non-diverted forest area	Non-forest area	Total

- 8. Para-2.4, 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.
- 9. Para-3.1 to 3.3, the yearwise excavation of ROM, clean ore, mineral reject, fines and handling of OB as furnished for the year 2018-19 & 2019-20 should be in line with the latest approved document.
- 10. Para-4.1, the details of dumps/stacks available at the mine site has not been furnished as per guidelines of FMCP. The information as furnished in tabular form should be as per approved modification of review of mining plan.
- 11. Para-4.2, 4.3, 4.4, generation of mineral reject and its utilization and storage not correctly furnished and it is not matched with the approved document.
- 12. Para-5.1.1, the proposal to be implemented for reclamation and rehabilitation of mined out land has not been described with yearwise plantation to be carried out over backfilled area. It should be insured that sequence of backfilling should be same as per original sequence of the lithology occurring in lease area.
- 13. 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".
- 14. Para-5.1.2, 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".
- 15. 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 alonwith retaining wall and garland drain. The proposed and existing retaining wall, garland drain and settling tanks should be clearly marked yearwise on reclamation plan.

- 16. Para-5.1.3, the details of existing afforestation over virgin area and plantation to be proposed over backfilled area has not been furnished.
- 17. Para 5.1.5, describe in detail the existing surface and ground water bodies available in the lease areas in terms of IS: 10500 or IS: 2490 (as the case may be) and the measures to be taken for protection of the same. Water balance chart and Report of hydrological study (if any) carried out in the area shall be submitted.
- 18. The details in tabulated form comprising location (core and buffer zone), grid reference, parameters of monitoring, frequency of monitoring etc. to be submitted for proposed water monitoring stations.
- 19. Para 5.1.6, describe the existing air quality status. The mitigative measures to be taken for prevention of pollution of air from airborne dust particles shall be described. The information of the air quality monitoring station to be furnished for both core and buffer zone.
- 20. Para 5.1.7, describe the type and quality of Waste/overburden and mineral reject dumps available and their disposal practice. The protective measures to be taken for prevention of siltation, erosion and dust generation from these waste materials should also be described.
- 21. The details of plantation proposed over waste dumps to establish dead slope of the dumps to be give in tabulated form comprising dump number, gird reference, area proposed, number of sapling, year of proposal.
- 22. Para 5.1.7, confinement of tailing materials and its utilization, periodic de-silting proposals and complete chemical analysis of tailing dam discharge water should be furnished.
- 23. Para-5.1.11, 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-5.1.12, decommissioning of mining machineries and their possibility of post mining utilization if any may be described.
- 24. Para-5.1.13, disaster management and risk management has not discussed as per guidelines.
- 25. Para-5.1.14, 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.
- 26. Para-5.1.15, time scheduling for closure 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 furnished and to be shown on reclamation plan.
- 27. Para-5.1.17, the post closure cost of watch and care and supervision has been not furnished item wise.

<u>Plates:</u>

- 28. Lease plan and DGPS plan have not been submitted. An updated surface plan with latitude, longitude of all corner pillars should be furnished. The proposals and features as furnished in plan & sections should in line with the approved document.
- 29. An updated Geological plan and sections considering should be furnished. The geo-structural information like strike, dip, dip-direction etc to be shown clearly.
- 30. 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.
- 31. Proposals of land restoration/reclamation/rehabilitation, afforestation, waste dump management, safety and security etc should be depicted in Reclamation Plan yearwise with different colour codes. The engineering drawing of proposed fencing wall with measurement and sketches of retaining & garland wall, settling pond shoul be furnished.
- 32. 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.