



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/22-ORI/BHU/2018-19

दिनांक / Date: 14.06.2018

To

Shri Pawan Kumar Ahluwalia,  
Post Box No-3, At/Post-Barbil,  
Dist-Keonjhar, Odisha-758035.

Sub: Approval of Final Mine Closure Plan of Gonua Iron & Manganese Ore Mines over an area of 86.886 ha in Sundargarh district of Odisha of Shri Pawan Kumar Ahluwalia submitted under Rule-24 of Mineral Conservation and Development Rules, 2017.

Ref: - i) Your letter no. nil dated 04.06.2018 received on 05.06.2018.

ii) This office letter of even no. dated 05.06.2018.

iii) This office letter of even no. dated 05.06.2018 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 site inspection carried out on 10.06.2018 by Shri Dilip Jain, Junior Mining Geologist and Shri Ashok Kumar Pany, Asst. Mining Engineer. 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 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

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:

1. Shri Chandrabhanu Dash, Qualified Person, Geo Consultants Private Limited, Plot No-853, Gobind Prasad (Medical Lane), Mahavir Nagar (Infront of Radhika Complex/Reliance Fresh), Laxmisagar, Bhubaneswar-751006, Odisha.

(HARKESH MEENA)

क्षेत्रीय खान नियंत्रक / Regional Controller of Mines

**SCRUTINY COMMENTS ON FINAL MINE CLOSURE PLAN OF GONUA IRON AND MANGANESE MINE OF SRI P.K. AHLUWALIA, OVER AN EXTENT OF 86.886 HA., LOCATED IN VILLAGES GONUA AND PATABEDA UNDER KOIRA P.S OF SUNDERGARH DISTRICT OF ODISHA STATE, SUBMITTED UNDER RULE 24 OF MCDR, 2017.**

1. On examination of the front cover, Mining Lease Number/TC Number/Lease Number if any, along with date of lease expiry, e-mail, fax number of the lessee and QP to be furnished on cover page. Further, summary of the proposals to be given before the introduction page. Further, on cover page extent of the area mentioned in acres is not matching with the executed lease deed.
2. As per format summary of proposal at a glance to be given before introduction page. Same has not been submitted before introduction page.
3. Introduction has not been given in sequential manner. The details/status of all the statutory clearances to be given with documentary evidence.
4. Para 2.1: email id of lessee to be mentioned. Para 2.4: Name of partner/ Directors(if any) with full address & phone fax & email details has not been furnished.
5. Para 3.3: Required details under para are not furnished. Para 3.4: The details of SLD execution to be mentioned. Para 3.6: Required information like Phone/mobile number, Fax number, email id etc . has not been furnished.
6. Para 3.7: As per format details to be furnished along with Khasara number/ survey number/block number etc. Desired details as per format have not been furnished. Check and rectify.
7. Para 3.11: Approach route from District Head Quarters to mine site is not detailed. Para 3.13: All the boundary pillars should also be given in UTM for better referencing.
8. Page 6: As per format the details of general location map to be given after para 3.14. Check and required information to be provided.
9. Page 7: The rule position 14 (2) of MCDR, 1988 as mentioned to be rectify for modification of Mining Plan.
10. Para 5.2 to 5.27: The information of proposal has been furnished. The information for actual work done and reason for any deviation has not been furnished at all for mentioned paras. Further, in para Para 5.24 to 5.27 the information on environment monitoring data to be furnished along with location of monitoring station, frequency, prescribed limits of the parameter etc.
11. Para 5.28: The details of the area should be furnished as per the guideline for forest and non-forest separately. Further, area mentioned on page 11 for area put to use as on 01.04.2018 is not matching with the approved document. Check and rectify.
12. **Geology and Exploration:** The highest and lowest altitude mentioned is not matching with the surface plan. Para 6.2: Regional geology to be described with reference to location of lease/applied area. Under this different rock types, strike and dip direction and structures, control of mineralisation and stratigraphy in brief should also be given.
13. Para 6.3: Local geology to be described in terms of geology of the lease area such as shape and size of the mineral / ore deposit, disposition of various litho-units indicating structural features, associated rocks, thickness of the ore body, Category of the Orebody in terms of MEMC'2015 etc.
14. Para 6.4: As per approved document dated 31/07/2015 information has been furnished for core and non-core drilling separately. Required information to be furnished as per approved document. Email, phone number, fax number and other information to be furnished under the para.
15. As per approve document dated 31/07/2015 a total of 57 BH have been drilled in the lease area. However, on page 15 it is mentioned that 60 BH have been drilled in lease area. Check and rectify. Para 5.5.1: Scale of mapping to be mentioned.
16. 6.5.2: All information as prescribed in the format to be given. In scale of exploration, instead of mentioning of scale of mapping, scale of exploration to be mentioned. In para 6.5.3, the details of BH wise sample collected and analyzed to be furnished. Para 6.5.4: Documentary evidence for expenditure occurs in exploration to be submitted.

17. Para 6.5.5: The area explored under different category of exploration to be mentioned forest and non-forest area separately. Further, the area for different level of exploration furnished in the table is not as per MEMC, rule 2015. Maximum depth of the exploration to be mentioned.
18. Para 6.6.1: The information furnished for explored strike length, unexplored strike length, width etc. to be depicted on the geological plan for better referencing. Para 6.6.2: Information has not been furnished as per prescribed table of format. Check and rectify. Para 6.6.4: Backup estimation calculation of mineral blocked to be given in feasibility study report. Para 6.6.5: Justification for economic axis to be given as MEMC rule 2015 (in terms of item number 17, 18 and 19 of part I).
19. Information in respect of the para 6.10 and 6.11 of the format has not been furnished at all. Compliance of rule 12(4A) of MCDR, 2017 to be ensure and accordingly proposal of exploration to be revised in para 6.10. In Para 6.11, it is to propose that all the cores/samples etc will be stored properly for future use and will not be destroyed prior approval of the competent authority. Brief details regarding preservation of cores should be given. The cores should be stored serially with suitable indexing and cataloguing and shall insure the submission of cores to GSI. Hence, storage location of core/samples to be given and mentioned in text along with showing on the plan. **In this regard an undertaking form lessee to be submitted.**

20. Para 6.10: The details of the proposed exploration to be given as per following format:

Sl.No	Year	BH No	Northing	Easting	Collar RL	Core/RC/DTH	Meteage	Inclination	Forest/Non-Forest/ diverted Forest	Surface Right/ Non-Surface	Purpose of BH
1	2018-19	PBH 01									
2	2018-19	PBH02									
Total						Total BH	Total mts				

21. **MINING:** The details should be in concurrence with the approved Mining Plan/RMP/MMP or approved Modified mining Plan in terms of Rule 12(4A) of Mineral Conservation and Development (Amendment) Rules, 2018.
22. Para 7.4- The bench slope and overall slope mentioned is incorrect. Further, Grid reference of proposed working location during the closure period of two years to be given. Para 7.5: The details of all the machineries as furnished in approved RMP to be given in the para. Extent of mechanization to be given separately for contractual and lessee with capacity, make and other information as per format.
23. **Mine Drainage:** Para (a) The depth of the water table should be given based on the nearby wells or water body. (b) Minimum depth of working to be indicated as per proposal of excavation. It is observed that a substantial amount of rain water supposed to be passed from the lease area. Hence, mine drainage plan to be submitted showing flow direction of the water, location final discharge, arrangement of arresting of solid waste etc. Further, the details of water drawn from external source and arrangement of its recycling may be given for domestic and industrial purpose.
24. **Stacking of Mineral Reject/Sub-grade Material and Disposal of Waste:** Para 9.0: Indicate briefly the nature and quantity of top soil, overburden / waste, Mineral Rejects Fines, Tailings or Slimes available within the lease area. Para 9.1: the details of all the waste dumps/stacks of ROM, fines, sized ore to be furnished as per prescribed table of the format. The copy of form A and A' maintained for ROM and processed ore to be enclosed in support of stacks available in lease area.
25. Most of the portion of the prescribed table has been left blank. It is construed that required information as per prescribed tables has not been furnished in the chapter. Hence, completed recast of the chapter is required. Check and rectify.
26. Further, the details of top soil, waste/OB disposal and mineral reject management during the closure period of two years should be furnished as per table below:

Year	Pit	Disposal of Top Soil (CuM)		Disposal of waste		Disposal of Mineral reject	
		Re-use/Spreading	Storage	Backfilling	Storage	Blending	Storage
2018-19							
2019-20							

27. Para 9.2: Required information has not been furnished. Information to be furnished about proposed dumping ground within the lease area for presence or absence of mineral and be outside the UPL unless simultaneous backfilling is proposed or purely temporary dumping for a short period is proposed in mineralized area with technical constraints & justification.
28. **Mineral beneficiation:** Material balance chart to be given for proposed processing indication feed quantity and quality, product quantity and quality, recovery at each stage, etc. Brief description is required about tailing/slime stacking in the lease area. Indicate quantity (cum per day) of water required for mining and processing and sources of supply of water, disposal of water and extent of recycling. Water balance chart to be given.
29. **Final Mine Closure Plan:** Para-11- Baseline information of the lease area should be described on the basis of information incorporated in first approved mining plan at the time of grant of ML. Existing base line information to be furnished on the basis of environment monitoring parameter carried out. The environment monitoring data of last one year to be enclosed for ready reference. Further, base line information to be furnished for Mining Lease area and surrounding 500 meter form lease boundary.
30. Para 11.1.b: The information to be given in sequence and detail based on the environment monitoring data. Para 11.1.c: The details of the human settlement within the lease area to be furnished along with buffer zone.
31. Para 11.2.1: All the proposals to be supported with yearly plans and sections depicting yearly progress in the activities for land restoration/reclamation/rehabilitation, afforestation etc. called "Reclamation Plan".
32. Para 11.2.2: The lessee should ensure fencing of all excavation endangering fall of persons/cattle etc. in terms of rule 26 of MCDR 2017. Accordingly proposal to be revised. Further, arrangements proposed during the mine abandonment plan and upto the site being opened for general public may be described.
33. Para 11.2.3: As discussed during site visit, information should be given for separately for existing plantation and proposed and cumulative plantation on Virgin area and Dump plantation indicating area and number of saplings. Same to be furnished in tabulated form. Grid reference to be mentioned.
34. Para 11.2.4: Information to be furnished about existing top soil dumps and proposed top soil dump etc.
35. Para 11.2.5: Describe in detail the existing surface and ground water bodies available in the lease area, if any. No discharge of mine water shall be allowed to mix with any stream/canal/nullah/river etc. without treatment, therefore, mitigative measures (settling tanks, check dams etc.) taken to avoid any discharge of untreated water from mine site may be discussed preferably year-wise in view of drainage plan.
36. Information of all existing check dams/settling tanks/rain water harvesting pits (with or without ground water recharging) etc. details indicating number, location and capacity of each should be furnished. As discussed, proposal of environment protetative measures to be given around exiting waste dump/sub-grade dump/mineral stacks etc. All mine water to be guided through garland drain, check dam, retaining wall etc. Location of final discharge point to be indicated on the plan.
37. Para 11.2.6: The mitigative measures to be taken for prevention of pollution of air to be described. The location and frequency of measurement of ambient air quality to be given in tabulated form.
38. Para 11.2.7: The details of existing dumps to be given in tabulated form along with grid reference. No proposal of utilization of waste material is proposed, hence, the manner in which the waste material will be stabilized to be described. Further, adequate proposal of retaining wall, garland drain, coir matting and settling tank to be given all along the waste dumps and mineral reject dumps. The dead dumps should be proposed for fully rehabilitation by plantation and with gap plantation.
39. Para 11.2.7: A firm proposal of evacuation of Mineral reject to be given and same should be evacuated before 31.03.2020. Hence, information of all the available mineral reject dumps and generation of mineral reject during proposed period and its evacuation form lease to be given.
40. Para 11.2.10: The information to be furnished for features existing within 500 mts of lease boundary specifying in each direction.

41. Para-11.2.11: The detailed existing infrastructure details available in the lease area should be furnished in tabular form and their present value and value at the end of 31/03/2020 after depreciation. Further their future utilisation should be evaluated. The decommissioning cost and final value of the decommissioned infrastructural facilities if any may be furnished.
42. Para-11.2.12: Decommissioning of mining machineries and their possibility of post mining utilization, if any may be described. Back-up calculation of decommissioning of mining machineries to be enclosed for ready reference.
43. Para-11.2.14: The details of contractual and on role man power to be given. The economic repercussions due to closure of mine have not been explained properly/para wise. Number of local residents employed in the mine, compensation, satellite occupations should be describe considering the impact of closure of mines.
44. 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 (programme evaluation review technique) or Bar chart and these activities should be clearly shown on reclamation plan. All the closure activity proposal should be started form the year 2018-19.
45. Para11.2.16: Abandonment cost as furnished in tabular form has not includes the cost of material required, safety measures implemented to prevent access to surface openings/excavations/dumps etc. The cost of maintenance, security and supervision has also been not included. Accordingly modify the cost of the abandonment.
46. Para 11.3: In view of the changed in the final mine closure plan, the table presented on page 46 to be modified. Para 11.4: Financial assurance for degraded land due to mining and allied activity to be enclosed in the form of bank guarantee. The details of bank guarantee to be submitted.
47. **Plates:** Surface plan, development plan and sections, financial assurance plan etc. has not been submitted with document. Hence, all the statutory plans and sections as per MCDR, 2017 to be submitted. All the plan & sections submitted along with the FMCP document should be certified by the Qualified Person indicating that, the plans and sections are prepared based on the basis lease map authenticated by the State Govt. of Odisha and found to be correct.
48. **Key Plan:** Most of the features given for index are not clearly legible, thereby the same should be marked clearly both in index as well as on the plan portion of the plate. The approach road to lease area has not shown. Many of the feature as prescribed under rule 32(5) of MCDR, 2017 has not been shown on the plan like village boundary with population, forest with tree density, sanctuary, waste land, agriculture land etc. The prominent wind direction to be shown with wind rose diagrammed.
49. **Surface Plan:** A surface plan showing all the existing features to be submitted along with all the boundary pillars in UTM and Latitude-Longitude coordinates.
50. **Geological plan and Section:** Surface geological feature to be highlighted in Geo plan like lithology, structural detail, litho contact, proposed exploration etc. Instead of writing section name as AA' etc, the grid number may be mention for better reference. The core and non-core drilling to be shown with different colour code. Geo structural information has not been furnished adequately. All the BH drilled to be reflected on the sections. The BH's not falling on the section to be reflected on the nearby section. The nomenclature of BH on the geological plan and section should be same of form K. In geological section instead mentioning the grade, area to be depicted with different hatch colour for saleable, non-saleable and waste and accordingly correlation to be made. All the proposed BH needs to show along with proposed Depth. At places the depth of the drilled BH are not matching with information given in the text. Direction of the sections to be depicted on geological section along which the sections have been drawn.
51. On verification of some of the Geo section, it is observed that Geo section have not been prepared considering drilled data. Entire geo section to be prepared considering Surface Geology, Drilled BH data and structural information. All sections to be recast. Check and rectify.

52. **Development, dump plan & Sections:** Development plan and section to be submitted for the year 2018-19 to 2019-20 along with other relevant information.
53. **Dump plan and section:** Dump plan and section to be submitted showing proposed area of dumping and other relevant information.
54. **Environment Plan:** The information submitted in plan for other lessee sharing common lease boundary is not matching with other plan. Check and rectify. The Environment Plan should be satisfy the provision as laid down rule 32(5) (b) of MCDR2017. All surface features of adjacent to lease boundary has not been shown. The prominent wind direction to be shown with wind rose diagram. In index "grazing land, agriculture land, waste land etc. has been furnished; however, same has not shown on the plan.
55. All the existing features available within 500m radius of the lease area has not been marked, which should be depicted and the plate may be revised accordingly.
56. **Reclamation Plan:** The plan to be revised in view of changes in Final Mine closure plan. All proposed feature with their location in tabulated form to be depicted on the plan. Mine drainage to be shown clearly on the plan. Prominent wind direction to be shown with rose diagramme. Accordingly, the plates submitted for progressive mine closure plan may also be revised.
57. **Conceptual plan and sections:** Conceptual sections have not been submitted. All the features proposed during the conceptual section to be depicted on plan and sections.
58. **FA Plan:** Plan has not submitted along with the document. Area degraded due to mining allied activity has not been considered for estimation of financial assurance like area degraded between various dumps and roads. As discussed during filed visit same to be revised.
59. **Annexures:** All pages to be numbered and indexed. Relevant annexure to be signed by Geologist/surveyor/RQP etc. It is observed that many of the annexures are not legible. A legible copy of same to be enclosed. Copy of all the violation and its compliance to be enclosed.
60. Copy of form J and K as per MCDR, 2017 has not been submitted for all the drilled BH. Further, copy of original chemical analysis report of all the samples to be enclosed. Few BH logs have been submitted in hand written format. Same to be digitized and submitted along with hand written log. Few of the bills submitted in respect of evidence of core drilling are repeated. Check and rectify. All form J and K should be in year wise sequence.
61. The copy of the ID & address proof of the applicant enclosed as annexure-II is not legible; thereby, fresh legible copies for the same should be submitted.
62. The feasibility report to be prepared in line with guideline given in the MEMC rule 2015. Accordingly, feasibility study report to be revised. Economic viability of the deposit to be justified.
63. The latest (at least for last one year and quarter wise) copies of base line data for Gonua iron & manganese mine to be enclosed.
64. Suspension letter of the divisional forest officer as mentioned under para 3.5 to be enclosed. The copy of consent order, EC and FC to be enclosed for ready reference and to be reflect in text part of the document.
65. Copies of approval letter of MP/SOM/MMP/MSOM etc. as mentioned in the text to be enclosed.
66. Few photographs in support of the quarry /dump /stack /reclamation & rehabilitation /afforestation etc. to be enclosed along with the document, which should be submitted for more informative.
67. In the light of the above, all other relevant plans & sections submitted along with the document may also be revised accordingly.
68. Copies of analysis report from NABL accredited laboratory or similar accredited laboratory and third party NABL accredited lab or Govt. lab etc. (wherever applicable) in terms of item 12 of Part IV-A of MEMC Rules'2015

**Note:-** All the Certificates/ Consents/Undertakings and Annexures to be enclosed at the end of the text part/FMCP format.

(DILIP JAIN)  
Junior Mining Geologist

