



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 MSM/FM/14-ORI/BHU/2018-19

दिनांक/Date: 13.06.2018

To

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

Sub: Approval of Modification of Review of Mining 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-17 (3) of MCR, 2016 and Rule 12 (4A) of Mineral Conservation and Development (Amendment) Rules, 2018.

Ref: - i) Your letter no. nil dated 30.05.2018 received on 04.06.2018.
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 Modification of Review of Mining Plan along with Progressive Mine Closure Plan 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 Modification of Review of Mining 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)** with financial assurance under Rule 27 of MCDR' 2017 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 Modification of Review of Mining Plan document.

The para-wise clarifications and the manner in which the deficiencies are attended should invariably be given while forwarding the modified copies of the Modification of Review of Mining Plan. It may be noted that no extension of time in this regard will be entertained and the Modification of 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 / 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 MODIFICATION OF REVIEW OF MINING PLAN WITH PROGRESSIVE MINE CLOSURE PLAN OF GONUA IRON AND MANGANESE MINE OF SRI P.K. AHLUWALIA, OVER AN EXTENT OF 86.886, LOCATED IN VILLAGES GONUA AND PATABEDA UNDER KOIRA P.S OF SUNDERGARH DISTRICT OF ODISHA STATE, SUBMITTED UNDER RULE 17(3) OF MCR, 2016.

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. Introduction has not been given in sequential manner. Information in respect of approval of MP/RMP to be given in tabulated form. The details/status of all the statutory clearances to be given with documentary evidence.
3. The present document should be Modification of Mining plan as the lease period is extended up to the period of the 31/03/2020. Accordingly, text to be modified in line with the Modification of Mining plan.
4. Page 4: Phone number, Fax-number, mobile number (if any), e-mail address in respect of registered office, Branch office and Mines office to be mentioned.
5. Para 2.a: Coordinates of all the boundary pillars to be submitted in UTM too. Page 7: The date of execution of supplementary lease deed to be mentioned. Information in respect of the different land type within the lease area has not been furnished as per prescribed table.
6. Para 3.2: The review of approved proposal to be carried out for the completed period of existing scheme of mining. Accordingly modification to be carried out. Further, violation observed during the review period and its compliance to be submitted along with the documentary evidence.
7. Para 3.6: The reason of modification to be given separately for rule 17 of MCR, 2016 and rule 12(4A) of MCDR, 2017. The reason of modification under rule 17 of MCR, 2016 to be justified properly as per rule content.
8. 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.
9. **Geology and Exploration:** The highest and lowest altitude mentioned is not matching with the surface plan.
10. Para d: it is mentioned that chemical analysis of sub-grade, stacks, dump has been carried out. However, result has not been annexed. A copy of all such chemical analysis to be enclosed for future reference.
11. Page 16, para e (i): It is mentioned that a total of five quarries have been developed in the lease area, however, during site inspection it is observed that there are only two quarries in the lease area. Check and rectify. The details like name of the quarry, location (UTM grid), dimensions of the quarry, top nad bottom mRL, area of all exiting quarry to be furnished in tabulated form.
12. Para e(ii): The information of drilled BH to be submitted as per following format:

S.No.	Year	BH Id	Easting	Northing	Collar RL	Inclination	Nature of BH	BH depth	No. of samples	Remark
1			UTM	UTM	mRL					

13. It is mentioned that a total of 57 BH have been drilled in lease area, however, more than 57 BH has been depicted on the plan. All the BH to be depicted as per information furnished in the form I and form J under rule 47 and 48 of MCDR, 2017. Accordingly geological section to be revised.
14. Page 18: The area for different level of exploration furnished in the table is not as per MEMC, rule 2015. Further, an area of 43.541 Ha has been furnished as explored and found non-mineralised. The level of exploration to be mention for the area explored and found non-mineralised. Further, the limit of G3 level of exploration has been considered without adequate exploration details. Same need to be rectified and should be as per M(EMC) rule 2015. Accordingly table presented on page 18 needs to be modified and estimation of reserve and resource also to be revised. Number of BH considered for resource estimation also to be revised.

15. Para e (iii): BH wise sample generated and analysis details to be furnished under the para.
16. To comply with the provisions of the rule 12(4A) of MCDR, 2017, the depth of exploration to be proposed for open cast mining shall be up to 300 meters or up to discontinuance of ore body, whichever is earlier. Accordingly, proposal of exploration to be revised. Further, the proposal of exploration given is inadequate to explore area under G2 level. Adequate proposal of exploration to be given as per mentioned rule.
17. 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				

At the end of the table cumulative number of proposed BH in forest area, non-forest area, diverted forest area, Surface right area and non -surface right area to be given.

18. As the lease period is going to expire by 2020 and as per MMDR, Act same will be auctioned. Hence, the proposal of all exploration needs to be given in the first year of the review period. Accordingly modify the proposal. Further, from geological sections and bore hole log it is observed that few BH have been closed in the mineralized zone only, hence proposal of exploration upto the end of mineralization to be given.
19. Page 22: Updated figure of reserve and resources to be given as per last approved document dated 31/07/2015. A fresh estimation of reserve and resource of Iron Ore and Manganese Ore is required in view of MEMC rule 2015.
20. Resource of 0.84 mt has been furnished in the text, however, section wise estimation calculation has not been furnished in the document. Chemical analysis report of Mn Ore to be submitted.
21. Many tables have been furnished in text without any proper heading, which creates confusion to understand the data. Verify and rectify.
22. **MINING:** From development sections, it is observed that excavation proposal has been given under for resource category. Proposal of excavation to be restricted to reserve category, which is economically minable. Accordingly proposal should be revised.
23. Instead of giving proposal of excavation in two quarries, requirement of Ore should be meet form one quarry in the interest of protection of environment. Accordingly proposal to be revised.
24. The length and width of the quarry mentioned on the page 34 is not mating with the surface plan. Further, stack number, waste dump number, sub-grade dump number etc. in the tables presented from page 34 to 36 to be mentioned on surface plan and other relevant plan.
25. The year wise grid location for proposed excavation to be given. Further, the layout of the haul road for present and future excavation proposal should be properly addressed in line with safe movement of fleet of the machinery and same needs to be depicted on development plan.
26. Page 39: Stripping ratio should also be given in t/Cum in table presented on mentioned page. The bench wise, year wise calculation proposed excavation to be given. Accordingly, table on page 50 and 51 to be revised.
27. Page 37 & 38: The information in respect of ROM production, Saleable Ore, Sub-grade Ore, waste generation etc., stripping ratio to be mentioned in table presented on page. The resource and reserve figure mentioned on page 46 is not matching with the resource table. Check and rectify.
28. As per guideline conceptual plan should be upto the end of lease period. In Conceptual Mine plan the details about total excavation, Disposal of waste, Sub-grade generation and its beneficiation/utilization, mine development, manpower and equipment requirement, conceptual exploration, land degradation, waste required and its availability for back filling the ultimate pit, depth of the back filling, reclamation and rehabilitation of pit and waste dump, Proposal of any expansion, etc. showing on a plan with few relevant sections to be given for conceptual period. Post mining land use to be given. Accordingly conceptual plan and section along with text to be revised.

29. **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.
30. **Stacking of Mineral Reject/Sub-grade Material and Disposal of Waste:** The location of the proposed dumping could not be assessed from the plan, hence, entire lease area to be shown in index, showing enlarged area of proposed dumping.
31. Para a: The nature of waste material to be indicated. Disposal of waste to be shown as per the table prescribed in IBM Manual of appraisal of Mining Plan 2014. The details of all existing dumps and mineral reject dumps to be furnished.
32. Para b: It seems that fresh area is proposed for dumping at two different locations. Proposed location to be proved for absence of any mineralisation. Hence, justification for selection of location to be given. All the proposed dump to be referred with grid reference.
33. Brief description for selection of site of disposal of Mineral rejects to be given. The proposed location to be referred with grade of mineral reject disposal. The disposal has been proposed at two different location, needs to be merged in single location in the interest of protection of environment.
34. During site inspection it is observed that proposal of protective measures like garland drain, retaining wall, settling tank etc. have not been given adequately. Proposal of series of check dam is required across the seasonal nalla to arrest surface runoff. Adequate, proposal to be given for existing and proposed waste dump, mineral reject dumps etc. to arrest surface runoff.
35. The details of all existing protective measures carried out in lease area like retaining wall, garland drain, check dam, settling pond etc. to be given with their location and dimensions.
36. Use of Mineral and Mineral reject: para (a) -ndicate specific specification of end use industry in terms of the chemical composition and physical requirement. Para (d) Chemical specification has not been detailed.
37. **Processing of ROM and Mineral Reject:** Material balance chart to be given for proposed processing indication feed quantity and quality, product quantity and quality, recovery at each stage, etc.
38. 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 may be given.
39. **Others:** Indicate the number of labour/unskilled manpower requirement.
40. **Progressive Mine closure Plan:** The lease is expiring in 31st March 2020, there for PMCP submitted in instant document should in line with the FMCP. 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. The environment monitoring data of last one year to be enclosed for ready reference. Further, base line information to be furnished for surrounding 500 meter form lease boundary.
41. The proposal of fencing should be given for entire Excavations/ pits endangering fall of persons/cattle etc. Proposal of geo-textile/coir matting with plantation to be given for matured slop of the proposed dump. If the Sub-grade material is not utilized fully by the end of 31/03/2020, proposal of coir matting over such dumps to be given in the interest of protection of environment. Garland drain and retaining wall to be proposed along the proposed/existing sub-grade stack. Accordingly entire progressive mine closure plan to be recast.
42. Time scheduling for proposed 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.
43. Provision of sump to be given and as far as possible all the rain water of catchment area to be diverted to that sump. The location and schedule of environment monitoring to be given in text.

44. Many of the 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.
45. **Plates:** All the plan & sections submitted along with the Modification of review of Mining plan 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.
46. **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.
47. **Surface Plan:** (i) Few features shown on the plan has not been indexed. (ii) Few of the stacks/dumps have not been shown on the plan. (iii) Mine road and public road to be shown with different colour code. (iv) The stack near boundary pillar 29/30 has not been shown properly. All boundary pillars to be shown with lat-long also. Most of the stacks has been mentioned as yard, need to be corrected. (v) Surveyor's signature missing, which should be signed by a competent surveyor. (vi) At least three permanent ground control points beyond the lease area have not been selected, which should be done and latitude & longitude of those ground control points should be furnished. The ground control points need to be linked with boundary pillars. (vii) Information as mentioned on page number 7 i.r.o. waste land, Agriculture land and Road has not been depicted on surface plan.
48. **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.
49. 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.
50. **Development, dump plan & Sections:** Year wise development plan and section to be submitted along with composite plan and sections. (ii) The bench wise development has not been shown on the plan. The excavation proposal should be given for the reserve. In development plan and section, proposed features to be highlighted. Proposed and existing bench mRL to be mentioned in plan and section. The excavation, dumping & stacking etc. has not been clearly depicted on the plan. All the development section should be in line with the geological section.
51. **Dump plan and section:** Ground mRL and proposed terrace mRL to be depicted on the plan and section. The extent of the first terrace of Dump 3 may be reduced in view of extent second terrace.
52. **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.
53. 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.

54. **Reclamation Plan:** The plan to be revised in view of changes in PMCP. All proposed feature with thre 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.
55. **Conceptual plan and sections:** Conceptual sections have not been submitted. All the features proposed during ths conceptual section to be depicted on plan and sections.
56. **FA Plan:** Plan to be revised in view of the comments in PMCP chapter.
57. **Annexures:** All pages to be numbered and indexed. Many of the annexures are not legible. A legible copy of same to be enclosed. Suspension letter of the divisional forest officer as mentioned under para 3.5 to be enclosed.
58. 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.
59. 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.
60. 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.
61. The copy of form A and A' maintained for ROM and processed ore to be enclosed in support of stacks available in lease area.
62. The latest (at least for last one year and quarter wise) copies of base line data for Gonua iron & manganese mine to be enclosed.
63. The copy of consent order, EC, FC surface right area to be enclosed for ready reference and to be reflect in text part of the document.
64. Copies of approval letter of MP/SOM/MMP/MSOM etc. as mentioned in the text to be enclosed.
65. 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.
66. In the light of the above, all other relevant plans & sections submitted along with the document may also be revised accordingly.

(DILIP JAIN)
Junior Mining Geologist

