



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/56-ORI/BHU/2018-19

दिनांक / Date: 09.04.2019

To

Shri K. J. S. Ahluwalia,
Mining Lessee,
P. B No.3, In Front of MMTC
Weigh Bridge, At/Post- Barbil,
Keonjhar, Odisha -758035.

Sub: Modification of Mining Plan of Nuagaon Iron Ore Mines over an area of 767.284 ha. in Keonjhar district of Odisha of Shri K. J. S Ahluwalia submitted under Rule-17 (3) of MCR,2016 & Rule 12 (4A) of Mineral Conservation and Development (Amendment) Rules, 2018.

Ref: -i) Your letter no. NM/KJSA/108/19 dated 02.03.2019 received on 15.03.2019.
ii) This office letter of even no. dated 15.03.2019.
iii) This office letter of even no. dated 15.03.2019 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 Mining Plan along with Progressive Mine Closure Plan has been examined in this office based on site inspection carried out on 01.04.2019 by Shri Dilip Jain, Junior Mining Geologist. The deficiencies observed are enclosed herewith as Annexure-I.

You are advised to carry out the necessary modifications in the draft Modification 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 Mining 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 Modification of Mining Plan. It may be noted that no extension of time in this regard will be entertained and the Modification 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 Pradeept Mohapatra, Qualified Person, At-Unchabali, Post-Bamebari, Joda, Dist-Keonjhar, Odisha, Pin-758034.

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

**Scrutiny comment on Modification of Mining Plan including PMCP in respect of NUAGAON
Iron Ore Mine of M/s KJS AHLUWALIA in Keonjhar district of Odisha State.**

1. Sequence of paragraph and its numbering as per IBM Manual Appraisal MP 2014 (hereinafter referred as format) has not been covered in text. All the headings as mentioned in the IBM Manual Appraisal MP 2014 should be furnished in all chapters including cover page.
2. On cover page Mine Code, Mining Lease Number/TC Number/Lease Number if any, along with registration number as allocated by IBM under rule 45 of MCDR, 2017 needs to be mentioned.
3. Para 3.7: One of reason of proposed modification mentioned is compliance of notification of Ministry of Mines, Government of India. Accordingly, the document has been submitted under rule 12(4A) of MCDR, 2017 other than rule 17 of MCR, 216. As per rule 12(4A) of MCDR exploration work to be completed by 1/04/2019 and mentioned period has already been completed. Hence, the submission of the instant document under rule 12(4A) is not acceptable and any change in exploration proposal under Modification of Mining Plan approved vide letter dated 23/04/2018 is not permitted.
4. Further, the reason of modification under rule 17 of MCR, 2016 has not been elaborated or justified.
5. Page 5: The coordinate boundary pillars may also be given in UTM. Further, UTM or WGS84 grid as per DGPS map may also be super-imposed in relevant plans for better comprehension.
6. Page 9: it is mentioned that total ML area (767.284 Ha) is comes under the reserve forest. However, in previous pages forest area mentioned is only 639.823 Ha. Check and rectify.
7. The details of violation pointed out by IBM and its compliance is not given for the review period. Check and rectify.
8. The details of the lease area (forest and non-forest etc.) to be given as per table given in the IBM manual on appraisal of mining plan 2014.
9. CCOM circular number 2/2010 and its addendum regarding geo-reference mining lease map and ML boundary pillars to be implemented.
10. **Geology and Exploration:** Page 22: It is mentioned that the details of the proposed BH during last approved plan period are as follows. However, information of drilled BH have been furnished. Check and rectify.
11. Page 23: It is mentioned that 139 BH drilled during 2012 and 2017 have been considered for resource estimation. However, a total of 155 BH have been drilled during the mentioned period. Further, considering the drilling of the year 2018-18 i.e. 54 BH, total BH will be 209, however, information has been submitted for 193 BH only. Check and rectify.
12. In the table presented on page from 23 to 26 the date of commencement of BH and closing date to be indicated.
13. Page 27: The copies of the bills raised by the exploration agency should also be submitted for ready reference.
14. On examination of the drilling data submitted as annexure-14, it is observed that information in respect of the BH mentioned in table presented on page from 23 to 26 at serial number 51, 89, 125 to 139 and 151 has not been submitted. Further, at places the depth of BH mentioned for the BH at serial number 116,143,167 and 190 also not matching with the details mentioned in annexure. Details of all BH should be submitted serially as per table in the text. As par above comment, the data of all the BH may be checked and rectify accordingly.
15. The level of the exploration has not been depicted as per the M(EMC) rule 2015. Accordingly, table presented on page 27 showing area under different level of exploration to be revised.
16. The details of exploration carried out to be submitted as per following format.

Area (in Ha) Explored under G1 and G2 as per UNFC				Remaining area (in Ha) to be explored under G2 as per UNFC	
Forest		Non-Forest		Forest	Non-Forest
G1	G2	G1	G2		

17. Page 28: As mentioned above the rule 12(4A) of MCDR, 2017 is not applicable in instant case and lease is going to expire by 31/03/2020. Hence, any change in exploration proposal under Modification of Mining Plan approved vide letter dated 23/04/2018 is not allowed. In view of above, no fresh proposal of exploration could be permitted.
18. Page 32: The reason for fresh estimation of Mineral Resource has not been elaborated. The reason of fresh estimation to be specific and clear. Accordingly, modification may be carried out.
19. Grade wise reserve and resources with respect to the cut-off and threshold value of Iron Ore should be estimated by x-sectional area method.
20. The basis of recovery considered 70% for saleable ore, 20% for Mineral Reject and 10% for waste to be submitted. Bulk density analysis report of few samples to be enclosed for ready reference.
21. Page 20: As per guideline of "IBM manual on appraisal of Mining Plan 2014" at least 10% of total samples to be analyzed in accordance to BIS and reports from NABL accredited/Government Laboratory. Accordingly, BH wise sample details submitted to above laboratory to be given in tabulated form indicating BH number, original sample number, duplicate sample number, assay of original sample and duplicate sample along with scattered plot (graphical representation) showing R2 value.
22. Justification for UNFC categories is inadequate. Proper justification of all UNFC codes should be furnished as per the provision of UNFC guidelines.
23. **MINING:** Page 51- It is mentioned that "it has been envisaged to enhance the production of ROM from 5.62 to 7.99 MTPA". However, in comparison to previously approved document dated 23/04/2018, there is no proposal of enhancement. Check and rectify at relevant places of the document.
24. Page 51: The details of four existing waste dumps have been furnished. However, waste dumping has been carried out at six locations. Update the details of the waste dumps. Further, the details of existing dumps given should also include the design capacity of dumps and waste material dumped and remaining quantity of waste dumping etc.
25. Mine design parameters have not been discussed properly like bench slope, overall quarry slope, and gradient of the haul road, bench height and width. The proposed height of the benches to be justified in line with the machineries to be used.
26. The production to be achieved from the existing quarry. No fresh area to be proposed for the production in the interest of protection of environment and scientific mining.
27. In para 3.7 the reason of modification, it is mentioned that the height of the benches of the Sonukocha quarry is proposed to increase from 6 to 8 meters. However, same has not been proposed in Mining chapter. Check and rectify. The quarry wise proposed bench height and width, direction of advancement, bench slope and quarry slope along with other details to be submitted in tabulated form.
28. The coordinates mentioned in the table presented on the page 55 is not matching with respective plan. Check and rectify.
29. The details of existing backfilled area, extent of backfilling and quantity of waste material filled to be given the tabulated form. The details of additional proposed area of backfilling may also be submitted.
30. The conceptual mine to be discussed in light of the format of Appraisal of Mining Plan 2014. The conceptual period to be mentioned in text, plan and sections.
31. **Mine Drainage:** The details of water drawn from external source and arrangement of its recycling may be given for domestic and industrial purpose. Further, a proposal for settling pond is to be given and all the rain water from the waste dumps to be diverted to the settling pond.
32. **Stacking of Mineral Reject/Sub-grade and Disposal of Waste:** Page 76 – The capacity of the wet processing plant is around 2.0 MTPA, however, the quantity of proposed feed has been shown very less. The details of all existing waste dumps to be submitted.
33. On examination of the geological sections of proposed backfilled area (S600) and nearby sections (S500 and S700), it is observed that area could not be considered as non-mineralised. Hence, proposal of backfilling would not be in the interest of systematic and scientific mining. Accordingly proposal may be revised.

34. Proposed waste dumping and mineral reject dumping area in instant document to be proved for barren/non-mineralised before any dumping/stacking. The details of exploration over proposed area to be given. Accordingly, proposal of dumping and stacking may be revised.
35. Page 84: the quantity mentioned i.r.o. sub-grade dumps at serial number 5, 23 and 29 is not matching with the quantity mentioned in the surface plan. Check and rectify. Further, it is also to be mentioned that when these dumps have been declared as a sub-grade dumps and related chimerical analysis to be enclosed.
36. The extent of the proposed waste dumping and mineral reject stacking to be given.
37. **Use of Mineral and Mineral Reject:** The physical specification as described by end-user industry to be given.
38. **Processing of ROM and Mineral Reject:** Para a - Nature of processing to be described. Para b: Material balance chart to be given for both kind of processing along with a flow sheet or schematic diagram of the processing procedure indicating feed grade, product, recovery, and its grade at each stage of processing. As mentioned material balance chart and flow chart has not been annexed.
39. Para C: The disposal of the tailing has not been detailed. The location along with the grade of the tailing along with other details to be given.
40. Para F: Specify quantity and type of chemicals if any to be used in the processing plant.
41. Para g: 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. The details of water requirement year wise for domestic and industrial purpose to be given separately.
42. **Progressive Mine Closure Plan:** The current base line information to be submitted in respect of the water regime, noise, air etc. Impact assessment needs to be described in details based on the field data.
43. The lease is expiring in 31st March 2020, there for PMCP submitted in instant document should in line with the FMCP. Accordingly, table on page 119 may be modified.
44. The proposal of retaining wall and garland drain are inadequate. As discussed during filed visit proposal of retaining wall and garland drain to be given along waste dump, mineral reject stacks etc.
45. The information of the water quality (surface and UG), air quality, noise quality monitoring station to be furnished for both core and buffer zone in respective para in tabulated form comprising of location, area of monitoring (core/buffer), parameter of monitoring, frequency of monitoring etc.
46. Proposal of plantation and coir matting etc. may be given for the matured dump terraces. The details of proposed planation to be given in the tabulated form comprising location, grid reference, area proposed, number of sapling proposed, dump plantation, bench plantation, gap plantation, planation over backfilled area, coast of watch and care etc.
47. **Feasibility Study Report:** The economic evaluation has not carried out properly. Cost of production (COP), Cost-Benefit analysis and financial appraisal needs to be carried out based on real time data.
48. **Plates:** All the plan & sections submitted along with the 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. Relevent plan to be signed by certified surveyor, Geologist, mines manager and QP.
49. The relevant information of the plan to be highlighted i.e. geological information to be highlighted in geological plan. Accordingly all the plans to be revised. UPL to be shown in relevant plans with red colour.
50. Few plans and sections have been prepared on a scale of 1:5000, other than the prescribed scale in MCDR, 2017. In this regard, letter of competent authority to be enclosed for ready reference.
51. Key Plan: Boundaries of all villages to be depicted along with wastelands, agricultural lands, grazing land etc. Approach road to be shown. The latitude and longitude of extreme ML pillars to be marked on the plan.
52. Authenticated lease plan: The copy of plan submitted is not legible. Legible copy of same to be submitted.
53. **Surface Plan:** the plan submitted is very clumsy. Only relevant information to be highlighted and other information may be suppressed. Forest, non-forest, Surface right, DRP cleared non-cleared area to be

- marked clearly on the plan. G1/G2 may be removed. Few features as shown in the index has not been shown on the plan. Color code for road and waste dump terrace seems to be same.
54. It is observed that sum of mineral stacks quantity as mentioned on the surface plan for different grade and size is not matching with monthly return of January 2019. Check and rectify.
 55. **Geological Plan & Section:** Geological plan does not illustrate geological feature of the area such as orientation of ore zone, structural information like strike, dip, dip-direction etc. All these information should be reflected on geological plan and section. Direction of sections to be depicted.
 56. Section 2500N has not been submitted. As per plan there is no proposal of BH over section 2400N, however, few proposed BH have been shown on the section. BH number KBH/353/18 on section 1900N has not been considered under the resource estimation. Few BH have been shown above the ground profile. In view of above plan and section to be checked completely and accordingly needs to rectify.
 57. Boundaries of different UNFC code have not been drawn in few sections and same needs to be drawn as per MEMC rule 2015. Check and rectify.
 58. **UNFC Plan:** The level of exploration i.e. G1, G2 etc. to be shown with unique color code and non-mineralized area, mineralized area within the G1, G2 boundary may be shown with different hatch. Accordingly, geological plan may be revised.
 59. **Development plan & Section:** The location of the proposed development could not be assessed from the plan, hence, entire lease area to be shown in index, showing enlarged area of proposed development. The permanent haul road to be shown with different color code.
 60. **Environment plan:** The Environment Plan as prepared should be satisfy the provision as laid down rule 32(5) (b) of MCDR2017. Surface features of adjacent mine has not been shown in core and buffer zone. Drainage direction to be shown clearly.
 61. **Reclamation plan:** The color code for existing and proposed feature should be different. All the proposed features (block wise) in tabulated form to be depicted on the plan. The proposed features to be highlighted. Accordingly, reclamation plan to be revised.
 62. **Mine Drainage:** The mine drainage plan submitted does not illustrate the flow direction of the water, location of final discharge, arrangement of arresting of solid waste etc. Proposal of settling tank, garland drain, retaining wall, check dam to be revised.
 63. Plate 16 and others: In index proposed sub grade dumps has been by two different colour codes for the year 2019-20. Check in other plan for waste dumping and sub-grade dumping and accordingly rectify.
 64. FA plan: It is observed that small area has been left between two areas proposed for degradation and this will be degraded due to mining allied activity. Same to be considered under FA calculation.
 65. **Enclosures:** All the annexure to be properly numbered/paged and 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.
 66. Many of the BH details submitted are not legible. A legible copy of same to be submitted. Further, the date of commencement and closure of all BH to be indicated. Form I as per MCDR, 2017 to be enclosed for recent and past exploratory drilling. In few BH details coordinates BH collar has been mentioned in UTM, whereas in few BH same is mentioned in local grid. Same to be uniform and as per the grid.
 67. Few photographs in respect of the exploratory drilling carried out including drilling machine, core, pillars of drilled BH, water sump etc. to be submitted.
 68. Certificate from the lessee should also include: The information furnished in the Modification of Mining Plan and Progressive Mine Closure Plan is true and correct to the best of my knowledge and records.
 69. Legible copy of id and signature proof of lessee to be enclosed for ready reference.
 70. Updated air, water, noise, ground vibration and soil data with analysis from NABL laboratory done periodically for last one year to be enclosed.
 71. In view of above, wherever necessary correction required to be made in text and plates.

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