



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 MPM/FM/02-ORI/BHU/2018-19

दिनांक / Date: 09.04.2018

To

Shri Surya Kanta Mishra,  
Nominated Owner,  
Baphlimali Bauxite Mines,  
M/s Utkal Alumina International Limited,  
At-Doraguda, P.O-Kucheipadar,  
Via- Tikiri, Dist- Rayagada,  
Odisha-765015.

Sub: Approval of Modification of Review of Mining Plan of Baphlimali Bauxite Mines over an area of 1388.740 ha in Rayagada and Kalahandi district of Odisha of M/s Utkal Alumina International Limited submitted under Rule-17 (3) of MCR, 2016.

Ref: - i) Your letter no. nil dated 27.03.2018 received on 02.04.2018.  
ii) This office letter of even no. dated 02.04.2018.  
iii) This office letter of even no. dated 02.04.2018 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 Mining Plan along with Progressive Mine Closure Plan has been examined in this office based on site inspection carried out on 06.01.2018 by Shri G. C. Sethi, Deputy Controller of Mines. 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 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

**SCRUTINY COMMENTS ON EXAMINATION OF MODIFICATION OF REVIEW OF MINING PLAN AND PROGRESSIVE MINE CLOSURE PLAN FOR BAPHLIMALI BAUXITE MINE OF M/S UTKAL ALUMINA INTERNATIONAL LTD., OVER AN EXTENT OF 1388.740 HECTARES, LOCATED IN PAIKKUPAKHAL, KARANJKUPAKHAL, DHUTURAPASS, DANADABAD & CHADRAGIRI VILLAGES OF RAYAGADA DISTRICT AND DHURUMUSI, SURYAGADA & KENDUMUNDI VILLAGES OF KALAHANDI DISTRICT OF ODISHA, SUBMITTED UNDER RULE 17(3) OF MCR, 2016.**

(1) In the front cover of the modification of mining plan, the PMCP has been submitted under Rule 23B(2) of MCDR,1988 & Rule 27(1) of MCDR,2017, which is not proper, thereby the exact Rule & sub-rule of MCDR,2017 for submission of PMCP should be furnished. Besides, the document has been submitted for the period of 4 years 2 months from February 2018 to 2021-22, which is not acceptable, instead the modification for the period from 2018-19 to 2021-22 should be submitted. Accordingly, corresponding changes may also be made in connected paras in the text. Moreover, the registration allotted under Rule 45 of MCDR, 1988 may also be indicated in the front cover for more informative.

(2) In the undertaking from the nominated owner, there are names of five persons are mentioned who are working in other companies as Chairman/directors but the name of such companies is not furnished.

(3) On examination of the contents & chapters of the modification of mining plan, it is found that, the document has not been prepared as per the universal format for mining plan. The chapter 4 has been mentioned to be for Geology, Exploration & Reserve, instead the same should be mentioned as **Geology & Exploration**. Besides, the chapter 11 is quoted with MCDR, 1988; instead the same should be of MCDR, 2017.

(4) The professional experience of more than 18 years has been issued in favour of Shri B.R.K. Padhi by Shri N. Nagesh, Joint president but it is not clear, whether Shri Padhi has been working with M/s Utkal Alumina International Ltd. for the entire length of the experience certified by Shri Nagesh may be re-confirmed. Besides, the exact date of joining of Shri Padhi with Utkal Alumina may also be specified. The professional experience claimed by Shri P.C. Sahoo is not acceptable. Moreover, the ID proof in support of none of the qualified persons have been submitted along with the enclosed annexure-2. It is also stated that, the qualification and experience certificates are self-attested by the qualified persons but in none of the annexure the qualified persons are signed.

(5) The copy of the approval letter, dated 11.11.2016 for review of mining plan has been enclosed as annexure-7 but in the contents for list of annexure, the approval letters dated 01.11.2012 & 03.09.2014 has been referred but the same are not found in the enclosure side. However, the copies of approval letter for the mining plan/scheme of mining approved in different occasions till date should also be submitted.

(6) The consent order from State Pollution Control Board, Odisha, enclosed as annexure-9 has already lapsed on 31.03.2018; thereby a valid consent for the same should be submitted.

(7) The bulk density test report from NABL accredited laboratory is stated to be enclosed as annexure-12 but the valid NABL accreditation certificate in support of the respective analytical laboratory has not been enclosed along with the test report.

(8) The copies of violation letter issued by IBM & compliance thereof is stated to be enclosed as annexure-13 but on verification in the enclosure side, the copies of violation letter is missing, which should be submitted for more informative.

(9) The chemical analysis report of 10% of the total boreholes drilled in the mine has been obtained from ANACONLABS has been enclosed as annexure—14 but the valid NABL accreditation certificate

in favour of the aforesaid analytical laboratory has not been enclosed, which should be submitted for ease in monitoring.

(10) The dump analysis report for dump-1 & dump-2 from the laboratory of UAIL has been enclosed as annexure-15, which is not acceptable, instead the analysis report for dumps should be obtained from NABL accredited laboratory/Govt. Laboratory and enclose along with the document for its authenticity.

(11) The documentary evidence for purchase of drill rods has been enclosed as annexure-16, instead the expenditure incurred on account of exploration only need be furnished supported by documentary evidence for more informative.

(12) The copy of SDF 2016-17 has been enclosed as annexure-17, which is not required and must be detached from the document.

(13) Last two months environmental monitoring letter is stated to be enclosed as annexure-21 but no such letter is found enclosed. However, the environmental monitoring report for the months of December 2017 & January 2018 from S.S. Environics (India) Pvt. Ltd is found enclosed, which is not proper instead, the same for atleast for four quarters analysed through any of the NABL Accredited laboratory or from Govt. laboratory should be submitted replacing the enclosed one for ease in monitoring.

(14) The analysis of 10% of the boreholes has been submitted but the litho logs for the already drilled boreholes have not been submitted. Besides, the Form-J for such boreholes has not been enclosed.

(15) The chemical analysis report of Bauxite samples has not been enclosed, which should be submitted, analysing the same either in a NABL accredited laboratory or in a Govt. laboratory & enclose along with the document for more informative.

(16) The copy of the explosive procurement license issued by the competent authority in favour of M/s Utkal Alumina International Ltd., has not been enclosed. Besides, a copy of the blasters license issued by the competent authority for carrying out blasting operations may also be submitted.

(17) No photographs in support of the quarry /dump /stack /reclamation & rehabilitation /afforestation & boundary pillars etc. have been enclosed along with the document, which should be submitted.

(18) Under the heading **preparation of modification of mining plan**, the specific & valid reasons for submission of modification of the review of mining plan has not been furnished, which should be discussed. According, corresponding changes may also be made at other places of the document. (Page No.1)

(19) Details of the modification of the mining plan/scheme of mining/review of mining plan approved in different occasions only need be given and rest of the things should be erased. Accordingly, corresponding corrections/ modification may also be made in connected paras in the text. (Para 3.2)

(20) The proposal & achievements thereof on account of exploration, development, production, topsoil generation, waste handling, reclamation, rehabilitation & afforestation etc. for the last approved scheme of mining period from 2012-13 to 2016-17 & for the year 2017-18 should be furnished indicating the reasons for deviation if any for more informative. All should be presented in tabular form & the irreverent information/data should be erased. (Para 3.3)

(21) Neither the letter reference of violation letter issued by IBM in different has been given nor the copies of such violation letter has been enclosed. (Para 3.4)

(22) Specific & valid reasons for submission of modification of the review of mining plan has not been furnished, which should be discussed. According, corresponding changes may also be made at other places of the document. (Para 3.6)

(23) Under the heading name & address of the prospecting /exploratory agency, the name of good number of agencies are furnished but the details of the exploration/prospecting undertaken by each of the agency has not been furnished, which should be given and the table furnished under the aforesaid heading may also be revised accordingly. (Page No.22, para 4.4)

(24) So many bore holes were reported to have been drilled as given in tabular form but the authenticity of such holes are not known. Therefore, the evidence for drilled holes to be furnished for more informative. (Para 4.5)

(25) There are 33 nos. of trial pits are stated to have been made but when such trial pits are made not specified. Besides, during the field visit no such trial pits are seen in the lease area. Therefore, the photographs of such trial pits should be submitted indicating the location co-ordinates of such trial pits for ease in monitoring. (Para 4.5.1)

(26) There is a mention that, the entire ML area has been explored during the last approved scheme of mining period, which appears to be not correct, thereby the statement made in the para should be revised. Moreover, already drilled borehole status for 425 nos. of boreholes are furnished in tabular form but the location co-ordinates of such boreholes are missing, which should be furnished by adding one more column right to the table. Besides, the extent of lease area already explored by putting the boreholes & the grid pattern of such bore holes may also be submitted. (Para 4.5.2)

✓ (27) There is a mention that, the entire plateau of ML area has been explored and no further exploration is required, which is not correct. Therefore, as required under the Minerals (Evidence of Mineral Contents) Rules, 2015, entire potentially mineralized zone to be explored under G1 level of exploration. Further, details of exploration to be given as per following format:

Sl.No	Year	BH No	Northing	Easting	Collar RL	Core/RC/DTH	Metage	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. Same has to be depicted on the geological plan. (Para 4.9)

(28) The calculations for Bauxite resources, Aluminous laterite & bauxite reserves as per the plant feed have been furnished in table-4.1 to 4.4 but on examination of the same, the following observations are made: (i) Up to what depth, the resources have been estimated is not known & the same has not been linked with the borehole analysis report of the individual boreholes in the particular grids. (ii) The recovery of bauxite percentage from ROM is not explained, which should be supported by an authenticated recovery test report from NABL accredited laboratory with valid scope of accreditation for Bauxite. (iii) No authenticated analysis report for the grades of the resources/reserves indicated in the last two column of the above referred tables has been submitted. In view of the above, it is found that, the reserves estimated are not as per the UNFC guidelines. For reserves estimation, the following procedure is to be followed:-

Initially cross section wise reserves/resources should be established for G1, G2, G3 and G4 categories of UNFC system based on the degree of exploration and prospecting carried out in the entire lease area as per criteria laid down in the guidelines. This should include the entire resources within the lease including the boundary barriers, mineral to be locked up in benches etc. After this, the geological reserves/resources should be upgraded to various categories of UNFC based on their

feasibility and pre-feasibility studies with suitable justification for each category. Further, the reserves /resources which is not mineable due to statutory barriers, safe working of the mine, waste dumping, internal roads, forest area for which clearance is not there should be put under the (211), (221) & (222) resources category of UNFC. Reserves below the cut-off grade should also be put under the feasibility / pre-feasibility resources category and the same should be adequately discussed in the feasibility study report. Accordingly, corresponding changes may also be made in geology & exploration chapter.

(29) Only the existing status of quarries and dumps has been furnished in tabular form but nothing has been furnished about the existing status of reclamation, rehabilitation & afforestation etc., which should be discussed. Likewise, the proposed method of mining may also be revised by giving proposed bench formation status both in overburden & in ore zone, dumping, reclamation & rehabilitation etc. for clarity. If the existing quarries are proposed to be developed /extended, the same may also be furnished. In the light of the above; the entire para may be revised. [Para 5.1.1]

(30) In the table furnished, under the heading **In situ Tentative Excavation**: The following observations are made: (i) There are two quarries are found in the mine but the excavation planning only for quarry-1 has been furnished and the reasons for not proposing both the quarries should be furnished. (ii) The proposed generation status of topsoil, OB/SB/IB, ROM & mineral reject has been furnished in tabular form but the bench/RL of the excavation planning has not been given, which should also be furnished by adding one more column in the table. (iii) The recovery percentage of the Bauxite, mineral reject, sub-grade & waste generation is missing. (iv) The location co-ordinates of the excavation planning for each year also not furnished and the same may also be given by adding one more column in the table with proper plate reference. (v) The grades of Bauxite, mineral reject, sub-grade material and the waste may also be furnished supported by authenticated chemical analysis report. Accordingly, corresponding incorporations /modifications may also be made in connected paras in the text & relevant plates. [Para 5.1.2(I)]

(31) The OB dumps are proposed to be re-handled and utilised for back filling but no concrete proposal for each year for the ensuing modification period for such dump re-handling and backfilling has been furnished, which should be presented in tabular form. [Para 5.1.2(II)]

(32) The existing land use, land use at end of the ensuing modification period & by end of conceptual period has been furnished in tabular form but extent of area put to use in different counts by end of each year of the modification period has not been given, which should be furnished in separate tables for each year for ease in monitoring. (Page No. 76)

(33) Under the heading, **post mining land use plan**, the land use in different counts has been furnished in tabular form but the proposed & existing status for the same has not been specified, which should be done and the table may be revised accordingly. (Page No. 78)

(34) The topsoil scraping proposal for 1<sup>st</sup> Feb 2018 to March 2018 furnished in the table should be erased and no such proposal is acceptable. Besides, the location co-ordinates of such top soil generation should be furnished by adding one more column in the table for more informative.

(35) The topsoil & OB generated from the mine is proposed to be utilised for concurrent backfilling but no such concrete proposal to the effect has been given with location co-ordinates of such backfilling for each year of the ensuing modification period. All should be presented in tabular form. (Para 7.1)

(36) Concurrent backfilling as well as dumping in both dumps D1 & D2 are proposed but no plantation for dump rehabilitation measures and plantation over backfilled area has not been proposed, which should be furnished for each year of the modification period. (Page No.90)

(37) The location co-ordinates of the dump-1 is missing, which should be furnished by adding one more column right to the table for ease in monitoring. (Page No.91)

(38) The chapters of PMCP are not as per the guidelines, which should be checked and corrected.

(39) Quarry wise extent of area proposed to be degraded in each year of the ensuing modification period should be furnished. Besides, quarry wise extent of area utilized for dumping, reclamation, rehabilitation & afforestation for each year of the aforesaid period may also be furnished. All should be furnished in tabular form and rest of the things should be erased. (Para 11.3.1)

(40) The extent of land use in different counts has been reduced during the modification period & accordingly, financial assurance calculations revised, which is not permitted. Therefore, the proposed land use should not be less than the proposal given in the previous approved document. (Para 11.6)

(41) All the plan & sections submitted along with the modification of mining plan should be certified by the Qualified Persons indicating that, **the plans and sections are prepared based on the lease map authenticated by the State Govt. of Odisha and found to be correct.**

(42) The DGPS surveyed map/plan in compliance to CCOMs circular No.2/2010 and its addendum dated 21.09.2011 & 11.06.2014 regarding geo-reference cadastral map has not been submitted.

(43) Plate-I (Lease Plan): In the contents for plates, the plate has been named as the lease plan but in the attachment side, the plate has been submitted without proper naming the same. Besides, the plate has not been authenticated by the competent authority of State Govt. Besides, there is one more additional plate has submitted along with the document but the reference for the same is missing in the contents for plates. Moreover, the plates have not been numbered for their identification.

(44) Plate-II (Surface Plan): At least three permanent ground control points beyond the lease area has not been selected, which should be done. Besides latitude and longitude of those ground control points should be furnished and the ground control points need to be linked with boundary pillars.

(45) Plate-III (Geological Plan): (i) As per the new Minerals (Evidence of Mineral Contents) Rule,2015, the level of exploration at different stages (G1,G2,G3,G4) and unexplored area should be properly defined in tabular format and the same should be marked on the geological plan. (ii) The exploration proposal covering the entire lease area to the G1 level of exploration should be proposed and the same should be completed by 2018-19. Accordingly, necessary modifications/incorporations may also be made in Geology and Exploration chapter.

(46) Plate-III(A) (Geological Sections): The geological index given in the geological sections are not matching with that of the geological plan, thereby the indexing as well as the lithology for sections should be revised in such a way that, the same will match with the geological plan.

(47) Plate-V (Backfilling Plan): The proposed dumps are not to be seen on the plan. The shapes proposed for backfilling also not as per the ground reality.

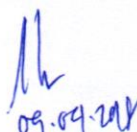
(48) Plate-V(A) (Backfilling Sections): The sections drawn for the proposed backfilling is not matching with that of the backfilling plan, thereby the plan & sections should be revised accordingly.

(49) Plate-VIII (A) (Conceptual Sections): Conceptual sections drawn on this plate is not matching with that of the conceptual plan. Besides, the sections are not drawn from boundary to boundary, which should be done and the plate may be revised accordingly.

(50) Plate-IX (Financial Assurance Plan): The mining operations are proposed for opencast method by concurrent backfilling but no backfilling & plantation proposal is seen on the plan portion of the plate. Besides, the index for the same also missing. The plate may be revised accordingly.

(51) Plate-X (Key Plan): Population of village falling within the 5 km radius of the lease area is missing, which should be furnished. Besides, the direction of flow of nala also not marked.

(52) Plate-XI (Environment Plan): On the plan, all existing features available within the 500 meters has not been shown, which should be marked and the plate may be revised accordingly.

  
09.09.2017  
(G. C. SETHI)

Deputy Controller of Mines