



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



BY EMAIL
Phone: 0674-2352463
Tele Fax: 0674-2352490
E-mail:
ro.bhubaneswar@ibm.gov.in
Plot No.149, Pokhariput
BHUBANESWAR-751020

No. RMP/A/22-ORI/BHU/2021-22

Date: 11.10.2021

To

Shri Bijay Kumar Das, Director (Production) & Nominated Owner,
M/s National Aluminium Company Ltd,
NALCO Bhawan, P/1, Nayapalli,
Bhubaneswar, Odisha- 751013

Sub: Approval of Review of Mining Plan of Panchpatmali (Central & North Block) Bauxite Mine along with Progressive Mine Closure Plan (PMCP), over an area of 1315.264 ha in Koraput district of Odisha State, submitted by M/s National Aluminium Company Ltd under Rule 17 of MCR, 2016.

Ref: - i) Your letter No. NBC/D(P)/066 dated 27.09.2021 received on 04.10.2021.
ii) This office letter of even no. dated 04.10.2021.
iii) This office letter of even no. dated 04.10.2021 addressed to Director of Mines, Government of Odisha copy endorsed to you.

Sir,

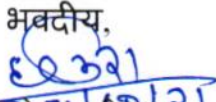
This has reference to the letter cited above on the subject. The draft Review of Mining Plan along with Progressive Mine Closure Plan (PMCP) has been examined in this office based on earlier site inspection carried out on 03.09.2021 by Shri Ramkishan R, Senior Assistant Controller of Mines & Shri Sanjib Kumar Mohapatra, Senior Mining Geologist. The deficiencies observed are enclosed herewith as Annexure I.

You are advised to carry out the necessary modifications in the draft Review of Mining Plan in the light of the contents vide Annexure I and submit:-

- (i) Three (3) firm bound copies of text in A4 size printable paper and plate/plan in hard copy. The consents and certificates by the Lease holders/Qualified Person and copy of bank Guarantee shall be attached in hard copy of document.
- (ii) Two (2) soft copies of the document in USB Pendrive. The soft copies of the document shall be digitally signed by the Qualified Person and Nominated owner. The text of document should be in excel(.xls) and word format. The plates/plans are to be submitted in .kml/.kmz/.shp format. A few sections may be submitted in .pdf format as indicated in the CCOM Circular 1/2021. All the annexures shall be submitted in soft copy.
- (iii) Financial assurance under Rule 27 of MCDR 2017.


The aforesaid final copies of document will be submitted within **15 (Fifteen)** days from the date of issue of this letter, for further necessary action.

The para-wise clarifications and the manner in which the deficiencies are attended should invariably be given while forwarding the final copies of the Review of Mining Plan. It may be noted that no extension of time in this regard will be entertained and the 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,

(हरकेश मीना)

क्षेत्रीय खान नियंत्रक

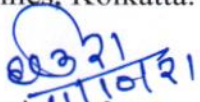
Copy for kind information and further necessary action to Shri Chandrabhanu Das, Geo Consultants Pvt. Ltd, 853, Gobind Prasad (Medical Lane), Mahavir Nagar, Laxmisagar, Bhubaneswar - 751006.


(हरकेश मीना)

क्षेत्रीय खान नियंत्रक

N.O.O:

Copy for kind information to the Controller of Mines (EZ), Indian Bureau of Mines, Kolkatta.


(हरकेश मीना)

क्षेत्रीय खान नियंत्रक

Scrutiny comments on Review of Mining Plan including PMCP in respect of Panchpatmali Bauxite Mine (Central & North Block) of M/s NALCO Ltd.

PART-A

CHAPTER-1: GENERAL INFORMATION

1. The document should be prepared as per the mining plan template format provided in CCOM circular No.01/2021 dated 07.06.2021. No alteration/deletion/change in format of the mining plan template is allowed. Any additional information may be submitted as annexure only if required.
2. All the information in the various table columns of different chapters as per the prescribed format in the template should be furnished. No column/rows should be left blank.
3. The final soft copy of the document should be digitally signed by QPs and Nominated Owner.
4. List of plates and annexures should be properly indexed with page nos. and in case of plates the scale should also be mentioned.
5. Under para 1.1 the details of lease code should be furnished. The five year block period has been wrongly furnished. Recheck and rectify the same. Under para 1.3.1 all the information regarding the mining plans have not been furnished. Recheck and rectify the same.
6. In support of information furnished under para 1.3.2 & 1.3.3 the supporting documents should be enclosed as annexure. Under para 1.3.4.2 the details regarding the consent to establishment should also be furnished. Under para 1.3.6 the details of PAN of the Nominated Owner should be furnished.

CHAPTER-2: GEOLOGY AND EXPLORATION:

7. The detailed information under para 2.1.2, 2.1.3 to 2.1.4.6 should be furnished. The furnished information is not adequate. Needs to be rectified properly.
8. Dip direction of the orebody furnished under para 2.1.4.8 needs to be reviewed and rectified properly.
9. The information under para 2.2.2.1 to 2.2.2.6 has not been furnished. The information should be furnished properly regarding the previous exploration.
10. The details of information regarding sampling and analysis under para 2.2.2.9 and 2.2.2.10 has not been furnished. The same should be furnished as per the prescribed format in template.
11. The details of information regarding the bulk density under para 2.2.2.13 has not been furnished. The same should be furnished.
12. The relevant information regarding ore body geometry etc., under para 2.2.3 has not been furnished. The same should be furnished. The descriptive information is not adequate as furnished under para 2.2.4.1, so detailed description regarding the methodology for resources/reserve estimation like, method, threshold, cut off considered influence considered etc., needs to be furnished.
13. All the information under para 2.2.4.2 needs to be furnished as per the prescribed format of the template for resource calculation, the level of exploration furnished needs to be rectified. The detailed information under para 2.2.4.3 to 2.2.4.13 has not been furnished viz., threshold value and cut off parameters, mining factors, UNFC justification under classification, etc.,. The same needs to be furnished. Proper UNFC codes should be assigned for reserves/resources.
14. Under para 2.2.4.13 in UNFC table the quantity and quality of aluminous laterite type bauxite should be furnished as separately under resources as a separate row. The grade of the quantity estimated should be furnished in terms of Al_2O_3 and $T.SiO_2$. Rectify the table accordingly.

CHAPTER-3: MINERAL PROCESSING

15. Under para 3.1 the details regarding the valuable mineral name and mineral percentage furnished needs to be rechecked and rectified. Analysis report in support of the same carried out in NABL accredited laboratory/Government laboratory should be enclosed as annexure.
16. Under para 3.2 complete chemical analysis of ROM for all radicals should be furnished with supportive document annexure of analysis carried out in NABL accredited laboratory.
17. Under para 3.3.1 type of crusher details should be furnished viz., jaw, gyratory type etc.,.
18. Overall water requirement water balance diagram for mining and processing should be enclosed annexure under para 3.9
19. Material balance chart of mineral processing should be enclosed annexure under para 3.10

CHAPTER-4: MINING OPERATIONS

20. The Pit-Id details furnished under para 4.2.1 should be clearly demarcated on surface plan.
21. The proposed locations of multiple Pits proposed during the plan period should be suitability reviewed for their necessity with proper justification.
22. Information furnished under para 4.2.1.2.2 & 4.2.1.3 should be rechecked and rectified.
23. Proposed financial year like year 2022-23 instead of year 1 should be furnished under para 4.2.2. recheck and rectify the same. The same should also be rectified wherever mentioned in the entire document.
24. The details furnished under para 4.2.2 regarding the bench slope angles and overall pit slope angles should be as per the relevant statutory guidelines. Needs to be rechecked and rectified.
25. Ore to OB ratio furnished under para 4.2.2.2 should be rechecked and rectified.
26. Under para 4.3.1 the blast vibration study report, bulk density study report and recovery study report and also any other related study reports should be enclosed. It is observed that no report has been enclosed annexure. Under para.4.3.2 the details regarding the grade range of material proposed to be produced during the years should be furnished. The dump workings information furnished under para 4.3.3 is not relevant. So it may be omitted.
27. Under para 4.3.4 the total quantity furnished under row (F) should be rechecked and rectified. Under para 4.4.2 the details regarding the only excavators should be furnished. Needs to rectify the same.
28. Under para 4.4.5.1 to 4.4.5.3 the details regarding the capacity, manufacturer details should be furnished. Under para 4.5.1, 4.5.2 the details furnished under powder factor should be rechecked. It has not been furnished. It should be furnished. Type of explosive furnished as SME but which type of explosive should be furnished like emulsion, slurry etc.,
29. The information furnished under 4.6.1 to 4.6.8 should be rechecked and rectified. All the information should be furnished shift wise as prescribed in the format.
30. Under para 4.6.2 the details furnished should be rechecked as per statutory guidelines. Under para 4.7.3 the details regarding the existing stacks only should be furnished.
31. Chemical specification of the use of mineral under para 4.9 should be furnished.
32. The aluminous laterite type OB removed from the mine should be systematically and scientifically stacked/backfilled/dumped in the mined out areas/dumping areas along with proper documentation. the records of grade and quantity of the stored material viz., aluminous laterite should be systematically maintained for future reference. It should not be mixed with other type OB/waste material. It should also be proposed to update the plan and sections depicting the stacked/stored area for future reference. This proposal should be annexed.
33. Backup calculation table for production like section wise calculation details should be enclosed as annexure.

CHAPTER-5: SUSTAINABLE MINING:

34. SDF at mine level should be descriptive under para 5.1. accordingly details should be furnished.
35. Under para 5.2 all the cumulative work done details till date should be furnished. The information furnished should be rechecked and rectified. Also the year wise proposals from para 5.2.1.1 to 5.3 should be furnished.

CHAPTER-6: PROGRESSIVE MINE CLOSURE PLAN

36. The details furnished under para 6.1 should be rechecked and rectified. Also the details of stabilized dumps information furnished is contradicting with the information furnished under para 4.2.1.3. need to rectify the same.
37. Under para 6.2.1 the details furnished regarding the waste quantities and top soil quantities should be rechecked and rectified with the proposed generation quantities. The estimated expenditure if any needs to be furnished.
38. All the proposals under para 6.2.2 to 6.2.8 should be furnished. It is furnished as Nil which is not acceptable.
39. Under para 6.2.6 the proposals regarding the recreational facility needs to be furnished.
40. Estimated expenditure wherever asked in the proposed PMCP measures should be furnished. It should not be kept as Nil.

41. Under para 6.2.9.2 the details furnished regarding the top soil management year wise should be rechecked and rectified.
42. The details furnished under para 6.2.11 regarding the land use at the expiry of the lease period should be rechecked.

CHAPTER-7: FINANCIAL ASSURANCE/PERFORMANCE SECURITY

43. Under para 7.1 the details furnished in the table should be rechecked and rectified. The area degraded due to mining and allied activity to be considered in FA calculation, Relevant rules of MCDR, 2017 should be quoted under FA amount calculation. FA should be submitted. the validity of the BG and details of BG should be furnished.
44. Additional area requirement proposed for waste dumps should be rechecked as there is no waste dumps proposed during the plan period.

CHAPTER-8: REVIEW OF PREVIOUS PROPOSALS

45. The details furnished under para 8.1.1 regarding lease area utilization needs to be reviewed and rectified properly. Further reasons for deviation if any should be furnished.
46. The proposals and achievement furnished under para 8.1.2 regarding SDF and CSR expenditure needs to be reviewed and rectified properly.
47. The details have not been furnished under para 8.2.6.1, 8.2.6.2, 8.2.8.1, 8.2.8.2 and 8.2.8.3 and also the reasons for deviation is not furnished. Recheck and rectify.
48. The details of information under para 8.3.2 have not been furnished. Need to furnish the same.
49. All the information under para 8.3.3.1 to 8.3.3.5 have not been furnished. Need to furnish the same.
50. Wherever the deviations is observed regarding the proposals vs actual achievements the reasons for deviation should be furnished.

CHAPTER-9: IMPACT ASSESSMENT

51. The information furnished is not applicable so the chapter information may be omitted.

PART-B

ANNEXURES

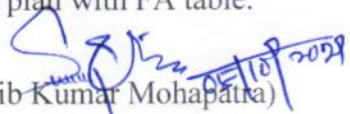
52. Environmental monitoring reports should be submitted.
53. Qualification and experience of QPs as per rule 15 of MCR, 2016.
54. CTO and CTE from SPCB should be enclosed.
55. Surveyor certificate should be enclosed.
56. All the study reports should be enclosed as per para 4.3.1 should be enclosed.
57. Feasibility report should be enclosed.
58. All the lithologs with chemical analysis of the all the exploration work carried out till date should be submitted.
59. Mineralogical analysis report should be submitted.
60. Any other annexures as referred in the text should be submitted.
61. Bank guarantee as per MCDR, 2017
62. Copy of surface right granted letter.
63. Transfer lease support document and also partial surrendered area support document

PART-C

PLANS AND SECTIONS

64. Magnetic Meridian and date of observation should be given on all relevant plans. Date of survey should be given on all plans and sections and signature should bear date of signature. All plans and sections should be signed with date by certified Surveyor, Qualified Person, Mine Manager, Mining Engineer and Mining Geologist as per provisions of MCDR, 2017 and MMR, 1961. All plans & sections prepared should follow the conventions mentioned under MMR 1961. All plans and sections shall show a scale a scale of the plan at least twenty five centimeters long and suitably subdivided.
65. All plans and sections should be prepared on UTM grid.
66. All the plans should be submitted as hard copies and also soft copy of all plans and sections in KML/KMZ/SHP should also be submitted which were geo-referenced.
67. Progressive Mine closure plan and sections should be submitted.

68. Key Plan: the key plan has not been submitted so the same should be submitted. The key plan should incorporate all features as mentioned Rule 32 (3) (a) of MCDR 2017. The prominent wind direction to be shown by rose diagram in key plan and other relevant plans. The approach road to the lease area should be shown with Co-ordinates of extremity of lease area.
69. Surface Plan: All the boundary pillar coordinates to be given UTM too. All the updated boundaries of Fines stack, Waste dump, Mineral reject dumps to be shown on the plan. Surface right area to be shown on the plan with different type of land schedules. All the features have not been shown in the index. Pit Id names should be clearly demarcated on the plan with distinctive boundary. Common boundary with other lessees if any should be shown on the plan. The Surface Plan should be prepared to satisfy the provision as laid down rule 32 (1) (a) of MCDR'2017.
70. Geological Plan & Section: (i) part geological plan and sections should be prepared on same scale i.e. 1:2000 (ii) Geo structural information has not been furnished adequately. (iii) Limit of estimation should be as per MEMC rule 2015. (iv) The redefined UNFC boundaries and UPL to be shown in Geological Plan and sections. (v) All the geological information to be furnished on geological plan and section based on drilled BH, exposed pit, trial pits etc with their configuration profile (dimensions) like depth. Section lines with nomenclature should be highlighted on the plan. The litho sequence should be shown as per the borehole logs data in the sections. The sections should be prepared on the same scale as prepared for plan. Proposed boreholes should be shown in dotted line. bauxite mineralization area should be clearly demarcated on the Geological plan. Plan and section should be drawn on same scale. The Geological Plan should be prepared to satisfy the provision as laid down rule 32 (1) (b), (c) and (d) of MCDR'2017.
71. Development plan & Section: (i) present pit profile configuration of benches with UPL to be shown with red color and proposed development benches of each year with some other color. All development section to be submitted for which development is proposed. The proposed yearwise development area boundaries should be clearly depicted. (ii) 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.(iii) The proposed and existing bench mRL to be shown clearly over year wise development plan and sections. (iv) Geological information to be furnished on development plan and sections like litho units. v) Year wise mining plan proposals should be submitted in softy copy in the format of .kml or .shp file along with document. Need to do necessary corrections.
72. Progressive Mine Closure plan and sections: All revised year wise proposals as per comments in PMCP chapter to be depicted on the plan and sections.
73. Conceptual plan and sections: the plan and sections should be prepared taking into consideration of the production from in-situ excavations, available reserves and resources describing the excavation, , Disposal of waste, backfilling of voids, reclamation and rehabilitation measures, end of lease period etc.
74. Environment plan: The Environment Plan as prepared should be satisfy the provision as laid down rule 32 (5) (b) of MCDR'2017. Wind rose diagram should be depicted.
75. Financial Assurance Area Plan: The existing and additional area requirement should be separately hatched on the plan with FA table.


(Sanjib Kumar Mohapatra)
Senior Mining Geologist


(Ramkishan R) 5/10/2021.
Senior Asst. Controller of Mines

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