



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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Plot No.149, Pokhariput
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No. MPM/A/11-ORI/BHU/2021-22

Date: 28.10.2021

To

Shri Vinod Nowal, Nominated Owner,
M/s JSW Steel Ltd,
Plot No-468/1075, At- Sundara 13,
Po- Barbil, Dist- Keonjhar,
Odisha-758035

Sub: Approval of modification of Mining Plan of Jajang Iron Ore Mine along with Progressive Mine Closure Plan (PMCP), over an area of 669.078 ha (As per DGPS) / 666.150 ha (As per RoR) in Keonjhar district of Odisha State, submitted by M/s JSW Steel Ltd under Rule 17(3) of MCR, 2016.

Ref: - i) Your letter No. JSW/S/CO/2021/361 dated 01.10.2021 received on 05.10.2021.
ii) This office letter of even no. dated 05.10.2021.
iii) This office letter of even no. dated 05.10.2021 addressed to Director of Mines, Government of Odisha copy endorsed to you.

Sir,

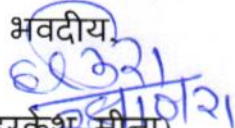
This has reference to the letter cited above on the subject. The draft modification of Mining Plan along with Progressive Mine Closure Plan (PMCP) has been examined in this office based on site inspection carried out on 19.10.2021 by Shri Dayanand Upadhyay, Senior Assistant Controller of Mines & Shri Kewal Krishan, Regional 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:-

- (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 the 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 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,

(हरकेश मीना)

क्षेत्रीय खान नियंत्रक

Copy for kind information and further necessary action to Shri Padmaraja Tumati, Qualified Person.


(हरकेश मीना)

क्षेत्रीय खान नियंत्रक

Scrutiny comments of Modification of Mining Plan of Jajang Iron ore Block, Area-669.078ha, Dist-Keonjhar of M/s JSW Steel Ltd submitted under Rule 17(3) of MCR, 2016

General

1. On cover page address of the lessee with email, phone no. should be furnished. The email and phone no. of qualified persons should also be furnished on cover page.
2. 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.
3. 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. If not applicable, it was written as not applicable.
4. The final soft copies of the document shall be digitally signed by the Qualified Person and Nominated owner.
5. The document should preferably be submitted in excel(.xls)/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.
6. The final copies of the text document to be submitted in 3 (three) hard bound copies in A4 size printable paper. The consents and certificates by the Lease holders/Qualified Person and shall be attached in hard copy of document. Three hard bound copies of plates/plans are also to be submitted. The plates/plans are to be output of AutoCAD software.
7. List of plates and annexures should be properly indexed with page nos. and in case of plates the scale should also be mentioned.

CHAPTER-1: GENERAL INFORMATION

8. Para-1.3.4.4, in land acquisition details the amount paid (INR) is not correctly furnished.
9. Para-1.3.7, the experience of qualified person should be clearly stated in supervisory capacity in the field of mining as per provision of rule 15(b) of Minerals (Other than Atomic and Hydro Carbons of Energy Minerals) Concession Rules, 2016.

CHAPTER-2: GEOLOGY AND EXPLORATION:

10. Para 2.1.1: the details of drainage pattern, Order of Stream and Minimum Distance of Stream from Lease Area (m) are to be furnished under different column.
11. All the proposed Bore Holes should be marked in section. Year wise proposed Bore Holes should be shown in different colour.
12. All the UNFC codes furnished in Geological Plan/sections as per MEMC Rule,2015.
13. Para 2.1.2: the information regarding public roads and human settlement etc as given in column are to be furnished within 5km of lease area.
14. Para -2.1.4.2, the structure of the area is to be described with reference to the lease area. The strike of the formation is to be furnished correctly.
15. Para- 2.1.4.3, thickness of various litho units as encountered in the bore holes/ lease area is to be furnished i.e minimum and maximum thickness.
16. Para- 2.1.4.8, the strike/trend of the ore body is to be furnished correctly.
17. Para 2.2.1.7, the copy form -I and form-J of all the bore holes drilled is to be enclosed as separate annexure.
18. Para- 2.2.1.10, details of total sample collected from bore holes as analyzed from NABL accredited/Government Laboratory should be attached in separate annexure as per table prescribed.

19. Para- 2.2.1.13, the bulk density as furnished in table should be justified with documentary proof with their. Method. The bulk density of density of OB/waste has not been furnished in the table.
20. Para- 2.2.2.1, the exploration (Before last plan period) is to be corrected as the lease area/block has been granted through auction.
21. Para- 2.2.1.7.1, exploration carried out by ex-lessee should be furnished.
22. Para-2.2.4.1, the cut- off grade of the mine should be clearly mentioned.
23. Para-2.2.4.2, the resource estimation should be revised as discussed during field grade wise i.e 45 to 55% Fe and +55% Fe at all the relevant places of the document.
24. Para-2.2.4.2, the range of depth is to be furnished in the column and all other related places of the document.
25. Para-2.2.4.3 to 2.2.4.10, all the parameters are to be elaborated in details as per Minerals Evidence of Mineral Contents Rules 2015.
26. Para-2.2.6.5.1, proposed year of exploration is not correctly furnished. The proposed Bore Holes should be furnished in light of provision of Rule 12(4) of MCDR, 2017 to prove the lease area in G1 level.

Chapter-3: Mineral Beneficiation:

27. Para-3.2, Complete Chemical Analysis of the ROM Ore/Mineral has been is be furnished in prescribed table.
28. Para-3.3.1 & 3.3.2, the range of product size are to be furnished.
29. Para-3.4.2, Fresh Water Requirement(l/h) and Recirculated Water(l/h) are to furnished.
30. Para-3.5.1& 3.5.3, in Screening and Classification, Product quality are to be furnished. The row of sub grade/mineral reject is not furnished.
31. Para-3.6, the table are not completely filled with desired information.
32. Para-3.8, method for tailing or reject from processing plant should be furnished within lease area. Need correction. It should be also be clearly mentioned that the ROM of only this mine will be processed in wet beneficiation plant. The year wise proposed processing of ROM should be in line of proposed production plan,
33. Para-3.10, the flow sheet of proposed wet beneficiation plant and dry screen plant are to be attached along with detail study report.

Chapter-4: Mining Operation:

34. Para-4.1.1: Existing features of Method of Mining should be described in brief in prescribed table.
35. Para-4.1.2: Proposed features of Method of Mining should be described in brief in prescribed table. Reason of proposed changes should be furnished as the instant document is submitted for modification of mining plan.
36. Para-4.2.1.1: The details of existing pits are not correctly furnished in terms of Pit ID, Pit status, area covered by pits in ha and Pit dimensions. Para-4.2.1.2.1: In dump details the total quantity of different type of dumps has not been furnished.
37. Para-4.2.1.2.2: Stack details are not furnished with total quantity of stack in tones. Para- 4.2.1.3: Length of Garland Drain (m) left blank. Need correction.
38. Para-4.2.2.1 & 4.2.2.2: Bench Parameters and Year wise Opencast Development as furnished in prescribed table should be re-checked and corrected. The production proposal should be in line of earlier approved proposal.
39. Para-4.3: In Material Handling Summary, the annexures are enclosed are marked with annexure number.

40. Para-4.3.4: In Calculation Summary and other places along with year no. specific year should also be mentioned. In column of year-1 it is to be mentioned not applicable as the instant document submitted is modified mining plan.
41. Para-4.4: In Machine Calculation, the parameters of total handling (Ore and OB), bucket capacity, fill factors, swell factor, idle time and standby etc are to be considered.
42. Para-4.5.1: Blasting & Explosive Requirement in Waste/Development, the powder factor is not correctly furnished. Para-4.5.2: Blasting & Explosive Requirement in Mineral / Ore, the type of explosive and type of explosive is to be used are not correctly furnished. The figures furnished in table are also miss-matched. It is to be re-checked and corrected.
43. Para-4.6.6: In No. of Persons Engaged Per Day, the table is left blank. Need correction.
44. Para-4.7: In Waste Management, the information asked in different tables are left blank. All the desired information are to be furnished in tables.

Chapter 5: SUSTAINABLE MINING:

45. Para-5.2: In year wise CSR initiatives, the specific year wise proposal should be furnished. At the places where proposal is not furnished should be marked nil in place left blank.

Chapter 6: PROGRESSIVE MINE CLOSURE PLAN

46. Para 6.1: The Status of Land is not correctly furnished in prescribed table. It is to be re-checked and corrected.
47. All the prescribed tables are to be furnished with desired information otherwise it is clearly mentioned as not applicable.
48. Para-6.2.1: In year wise backfilling, the estimated expenditure is not mentioned. The top and bottom RL are to be re-checked from year wise development plan and sections
49. Para 6.2.2.2 & 6.2.2.3: Retaining wall and garland drains proposals are to be revised in light of back log of previous year proposal as discussed during field visit.
50. Para-6.2.11, Land use of lease area at the expiry of lease period (CONCEPTUAL STAGE) are not correctly furnished. It should be furnished in pursuant to the order dated 14.01.2020 passed by MOM, GOI, consequent up on the order dated 08.01.2020 of the Hon'ble Apex Court passed in W.P.(C) No. 114/2014, the lessee shall carryout "re-grassing in mining area after closure of mines".

Chapter 7: FINANCIAL ASSURANCE/ PERFORMANCE SURETY

51. Para-7.1: in year wise table of land use pattern, the area deducted under different heads are not justified and the area furnished under different heads are also not matched with FA plan. It is to be clarified.
52. Para-7.2: Total Area Proposed to be put to use in hect is to be furnished. Para-7.3, Total Resources in tonnes for calculation of Performance Surety as furnished in table is not correct It is to be re-checked and corrected.

CHAPTER-8: REVIEW OF PREVIOUS PROPOSALS

53. In review of previous proposals the reason of deviation under different item has not been furnished. All the tables should be filled with desired information.

CHAPTER-8: IMPACT ASSESSMENT (for fresh grant)

54. Para-9.3.2 & 9.3.2.2, the land environment and anticipated impact under prescribed tables have not been discussed.

Annexure

1. Singed copy of form-I & J to be submitted.
2. Environmental monitoring reports should be submitted.
3. Copy of surface right granted letter. Surveyor certificate should be enclosed.

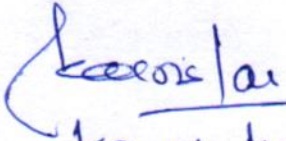
4. All the lithologs with chemical analysis of the all the exploration work carried out till date should be submitted.
5. Any other annexures as referred in the text should be submitted.
6. Calculation of insitu tentative excavation year wise considering the cross-sections, Bench RL etc should be furnished.
7. Experience & Qualification Details of Qualified Person and Certificate from qualified person regarding authenticity of information submitted is to be attached.
8. Copy of Declaration of Owner/Nominated Owner in case of Company/partnership firm, Copy of Registration of Company (RoC)/Partnership firm (Registration) & Deed, ID & Address Proof of Owner/ Nominated Owner are to be submitted.
9. The content of pre-feasibility report and analysis of economic viability of the project is to be described in detailed as per rule 16 and Part-V of MEMC Rule 2015 and enclosed in annexure. The economic viability of the project should be supported with NPV, IRR, Payback period by cash flow chart with total investment, operational cost etc.
10. Copy of lease deed executed, Copy of MDPA, Copy of Performance Surety, Mineral processing flowsheet with stage wise recovery, Copy of Environment and Forest Clearance, Consent to Establish, Consent to Operate are to be enclosed.
11. Geological report vetted by State Govt., copy of LOI and all other necessary required document are to be submitted.


Plates

12. 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, and Geologist. All plans and sections shall show a scale a scale of the plan at least twenty five centimeters long and suitably subdivided.
13. All plans and sections should be prepared on UTM grid. Copy of Scale relaxation as per provision of MCDR 2017 should be enclosed. The plans and sections submitted bear the certificate that -- the plans and sections are prepared based on the lease map authenticated by the state government.
14. 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.
15. Lease Cadastral Plan and Geo referenced Cadastral Plan authenticated by State govt.should be submitted. Progressive Mine closure plan and sections should be submitted.
16. Key Plan: The key plan should incorporate all features as mentioned Rule 32(5) (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. The adjoining mining leases, roads, villages , reserve forest boundary, predominant wind direction, should be prominently shown.
17. Surface Plan: The Surface Plan should be prepared to satisfy the provision as laid down rule 32 (1) (a) of MCDR'2017. All the boundary pillar coordinates to be given UTM . All the updated boundaries of Waste dump, Mineral reject dumps to be shown on the plan. Surface right area to be shown on the plan. All the features have not been shown in the index.
18. Geological Plan & Section: Geo structural information has not been furnished adequately. The geological plans and sections which were submitted with Geological report should be updated. The bore holes ID as furnished in geological plan and sections are not matched. All the existing and proposed are to shown and marked distinctly in geological sections. Area under G1/G2.. should be demarcated and UNFC codes are to be depicted in geological sections as per MEMC

rule 2015. Revised future exploration proposal should be furnished in plan and sections under G1 level of exploration..

19. Development plan & Section: Year wise development sections are to be furnished separately. Consider the development sections 1500, the UPL has not been furnished correctly prevailed on mineralization. Before backfilling it is to be ensure that the area should be completely exhausted. Backfilling has not been shown in development sections. The backfilling proposal should be shown in different color year wise in plan and sections. The proposed and existing bench mRL to be shown clearly over year wise development plan and sections. A centralized location of mineral processing yard should be proposed in place of processing at different location. Year wise mining plan proposals should be submitted in softy copy in the format of .kml or .shp file along with document.
20. Progressive Mine Closure plan and sections: All revised year wise proposals are to be depicted on the plan and sections.
21. Conceptual plan and sections: Conceptual plan may be prepared considering mineralization as revealed from the borehole logs considering the life of mine as guidelines.
22. 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.
23. Financial Assurance Area Plan: The existing and additional area requirement year wise as furnished in text should be separately hatched on the plan with FA table.


KEWAL KRISHAN
(RMG)


27.10.21
(Dr. Upadhyay)
Sr. ACOM