

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 BHUBANESWAR-751020

Date: 04.05.2021

No. MPM/A/03-ORI/BHU/2021-22

सेवामे

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

विषय: Approval of modification of Mining Plan of Nuagaon Iron Ore Mine along with Progressive Mine Closure Plan (PMCP), over an area of 776.969 ha (As per DGPS) / 767.284 ha (As per RoR) in Keonjhar district of Odisha State, submitted by M/s JSW Steel Ltd under Rule 17(3) of MCR, 2016.

संदर्भ: - i) Your letter No. JSW/S/CO/2021/64 dated 22.04.2021.

ii) This office letter of even no. dated 23.04.2021.

iii) This office letter of even no. dated 23.04.2021 addressed to the Director of Mines, Govt. of Odisha, copy endorsed to you.

महोदय,

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 by Shri Ramkishan R, Senior Assistant Controller of Mines & Shri S R Mazumdar, Senior 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 or JPG format in resolution of 100x100 pixels on same CD) 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.

Yours faithfully,

(हरकेश मीमा)

क्षेत्रीय खान नियंत्रक

Copy for kind information and further necessary action to Shri Padmaraja Tumati & Shri Yeddla Ramesh, M/s JSW Steel Ltd, Plot No-468/1075, At- Sundara 13, Po- Barbil, Dist-Keonjhar, Odisha-758035.

(हरकेश मीना) क्षेत्रीय खान नियंत्रक Scrutiny comments on examination of modification of mining plan with PMCP of Nuagaon Iron ore Mine Mines over an area of 776.969 Ha (as per DGPS survey) in Keonjhar District of Odisha State of M/s JSW Steel Ltd

GENERAL POINTS:

- All the text, tables and annexures has not been properly indexed/ numbered/ paged and signed by qualified person. The certificates/annexures are not with date and signature. All the information on cover page has not been furnished as per the IBM Manual 2014. The QPs have not signed each page of the document with name. Need to do necessary corrections.
- In the introduction chapter, it has not been mentioned that the proposed production of iron ore during the plan
 period is higher than the existing EC capacity. Lessee has not mentioned that required statutory clearances will
 be obtained regarding the same complying the provision of Para 2.4 of mining lease deed. Need to do necessary
 corrections.
- In page 1, the earlier lessee mining lease details are not required so may be omitted. The same should also be omitted from all relevant places in the document. Need to do necessary corrections.
- 4. In page 8-9, it has been mentioned that lessee intends to increase production up to 20 MTPA whereas the reason is not mentioned is Para 3.6. Further, the 20 MTPA production proposals are not shown in insitu excavation proposal. In page 9, it has been mentioned to transport iron ore concentrate whereas in para 3.6 it is mentioned to transport of ore. Need to do necessary corrections.
- 5. In Para 3.3, review of earlier approved proposal in respect of excavation, reclamation & rehabilitation under PMCP etc. along with justification for deviations have not been properly furnished. The unit of measurements in proposal and actuals has not been mentioned. Further, the proposal for garland drain and retaining wall should be reviewed in "meters" and setting pits in "numbers". Further, the ore and mineral reject production for 2020-21 has not been reviewed separately with reason for deviations, if any. Need to do necessary corrections.
- 6. In para 3.6 the reason for modification has not been justified as per provision of rule 17 (3) of MCR 2016 in view of changes in the development proposal etc. Proper justification for modification of the mining plan with relevant documents has not been furnished. Need to do necessary corrections.

Geology and Exploration

- 7. The signed final geological report along with its plans & sections and annexures, which was vetted by State Government have not been submitted as a separate annexure volume altogether with the document. The block summary report also has not been submitted. Need to submit the same.
- 8. The terms sub grade should be replaced with mineral reject. In the parameters considered for resource estimation in page 53, the quantitative aspects in case of ROM Ore, ROM recovery and SI. No.10 of the table mentioning regional exploration may be rechecked and corrected. In page 54, the resource position as on 01.04.2021 have not been furnished in tones. Need to do necessary corrections.
- 9. The future exploration proposal should be modified to the extent that the boreholes proposal are not sufficient for the entire lease area to bring under G1 level of exploration as per exploration norms specified in Part III of MEMC Rules 2015. The area under G1/G2/unexplored/mineralized/non-mineralized area is not marked distinctly on the geological plan. Further, if any boreholes have been terminated prematurely then re-drilling of the boreholes should be proposed. Need to modify exploration proposal accordingly.
- 10. As per Rule 22 of Mineral (Auction) Rules, 2015, the holder of a mining lease shall complete detailed exploration (G1 level exploration) and prepare a detailed feasibility study report conforming to Part IV and V of the Mineral (Evidence of Mineral Contents) Rules, 2015 over the entire area under the mining lease, within a period of five years from the date of commencement of such mining lease. It is further observed that entire area has not been explored under G1 level of exploration. Therefore, pre-feasibility report confirming to Part V of Minerals (evidence of Minerals contents) Rules 2015 need to be submitted instead of Feasibility report. Further, the UNFC codes for reserves and resources should be changed accordingly at all relevant places in the document i.e. text and plates. Need to do necessary corrections.
- 11. The reserves and resources of ore and mineral reject for revised UNFC codes as mentioned above should be calculated and furnished by cross sectional method of estimation. Further, the economic axis, feasibility axis, and Geological Axis for the revised UNFC codes should be discussed in the text. They are to be justified properly as per UNFC guidelines. Need to do necessary corrections.

MINING

12. In page 103, it has been mentioned that ROM will be dispatched whereas in page 133 it is mentioned that the ROM will be processed. Need to recheck and do necessary corrections at all relevant places in the document.

- 13. The details regarding the transportation of ore within lease area only should be furnished. Necessary modifications should made at relevant places of the document. Bulk density of waste should be justified with test report of NABL laboratory. Need to do necessary corrections.
- 14. Conceptual Mine planning has not been furnished by taking into consideration of the revised production from insitu excavations, available reserves and resources describing the excavation, recovery of ROM, Disposal of waste, backfilling of voids, reclamation and rehabilitation showing on a plan with few relevant sections.
- 15. 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 "regrassing in mining area after closure of mines". So accordingly regrassing proposal has not been given in the mining area. Accordingly, the reclamation and rehabilitation measures proposal are to be modified. Rectify the same in relevant plates and sections.

STACKING OF MINERAL REJECT/SUB GRADE AND DISPOSAL OF WASTE:

- 16. The proposed dumping of mineral reject will not be allowed over the existing mineral reject dumps created by earlier lessee within the stipulated time frame as allowed by State Govt. to remove it in favor of earlier lessee as per rule. Need to do necessary corrections.
- 17. The disposal of mineral rejects stacks should be explained in detail regarding their location of disposal and whether it is mineralized area or non-mineralized area, UPL etc., year wise details of quantities disposal should be furnished in tabular format.

PROCESSING OF ROM AND MINERAL REJECTS

- 18. It is proposed to setup a 4500 TPH central processing unit and 30 MTPA grinding and beneficiation plant. The details of above units with capacity have not been furnished along with their specific location. Further, it is mentioned that 15MTPA iron ore fines will be sourced from nearby mines for as feed to beneficiation plant. The said proposal has not been justified with relevant documentary evidences from the competent authority of the relevant statute and its material balance has not been furnished. Further, the study report from institute of repute for feed, recovery and grade at each stage of processing has not been furnished. Need to do needful.
- 19. The proposed 4500 TPH central processing unit and 30 MTPA grinding and beneficiation plant should be in non-mineralized area and outside UPL. Need to justify the same. The location of the proposed plants and related facilities should be clearly demarcated in relevant plates and sections. The area proposed for setting up/installation should be in one specific location instead of alternate proposals.
- 20. In page 139, it is mentioned that tailings generated as waste will be disposed in the waste dumps and also as mineral reject dumps. In view of the rule 14(3) and 37(1) of MCDR'2017 the quantity of tailings, ore, and mineral rejects, waste dumps etc. shall be stacked or dumped separately and should not be allowed to be mixed. Accordingly, necessary modifications should be proposed. However, if tailings as waste together with mine waste generated are proposed to be dumped together, then study report from reputed institute regarding stability of the dump should be carried before any such disposal. Need to do necessary corrections.

PROGRESSIVE MINE CLOSURE PLAN

- 21. The monitoring of various environmental parameters as per the relevant statue has not been proposed in the core and buffer zone the lease area. The details of monitoring stations have not been marked on the environment plan.
- 22. Year wise mining plan proposals and land use pattern should be submitted in soft copy in the format of .kml or .shp file along with document. Need to do necessary corrections.

FEASIBILITY REPORT

23. Pre-feasibility report confirming to Part V of MEMC Rules 2015 should be submitted instead of feasibility report. Need to do necessary corrections.

PLATES (General):

- 24. With reference to CCOM Circular No 2/2010, the geo-referenced mining leases map superimposed on latest high-resolution satellite data has not been submitted.
- 25. The reference of scale relaxation mentioned in plans and section should be omitted. Need to do necessary corrections.

Key Plan:

26. The key plan should incorporate all features as mentioned rule 32 (5) (a) of MCDR 2017 and all features should be shown in index as well. The key plan has not been prepared in the original toposheet. Need to do necessary corrections.

Lease Plan:

27. The lease plan authenticated by the competent authority of state government has not been submitted. Need to submit the same.

Surface Plan:

- 28. The features shown in the index is not distinguishably shown in the plan. Diverted forest area to be shown in the plan as well as marked in the index of the map. The UPL should be shown over the plan and in index. Surface right area and forest, non-forest area, diverted forest area has not been shown on the plan.
- 29. All the boundary pillars coordinates should be furnished in a tabular format. The Surface Plan should be prepared to satisfy the provision as laid down rule 32 (1) (a) of MCDR'2017.

Geological Plan & Section:

- 30. Area under G1/G2/G3 has not been marked distinctly on the Geological plan. Revised UNFC codes complying the above scrutiny points should be mentioned in the cross sections. On the cross sections, the details of boreholes drilled such as total depth, RL are not mentioned. The revised borehole proposal is to be shown in dotted lines in cross sections. The vertical scale of the sections should be in line with scale of the section. The Geological Plan are not prepared as per rule 32 (1) (b), (c) and (d) of MCDR'2017. Need to do necessary corrections.
- 31. The UNFC plan submitted may be omitted. Need to do necessary corrections.

Development plan & Section:

- 32. Quarry name, existing and proposed year wise bench profiles, waste dump, mineral reject dumps etc. has not been shown in the development plans and sections including legend. The lithology of the area has not been clearly shown in year wise development plan and sections in the area proposed for development.
- 33. The development plans and sections should be prepared on updated geological plan and sections. Year wise mining plan proposals should be submitted in soft copy in the format of .kml or .shp file along with document. Need to do necessary corrections.
- 34. In addition to part development plan and section in 1: 2000, a composite development plan and section in a scale of 1:5000 should be submitted. Need to do needful.
- 35. In the composite development plan and section in 1: 5000 and in respective development plans and sections prepared in 1: 2000 scale, the area proposed for commissioning of 4500 TPH CPU and 30 MTPA beneficiation plant etc. have not been shown. Need to do necessary corrections.

Environment plan:

36. The Environment Plan as prepared should be satisfy the provision as laid down rule 32 (5) (b) of MCDR'2017. The proposed environment protective measures to be shown in environment plan. The drainage pattern has not been shown on the plan. Wind rose diagram has not been shown with predominate wind direction.

Reclamation plan along with sections for the backfilling proposal.

37. Reclamation plan has not been submitted as per IBM appraisal of mining plan describing the proposals to be implemented for reclamation and rehabilitation of mined-out land including the manner in which the actual site of the pit will be restored for future use.

Annexures

- 38. The final geological report along with its plans & sections and annexures, which was vetted by State Government have not been submitted as a separate annexure volume altogether with the document. The block summary report also has not been submitted. Need to do submit the same.
- 39. The copies of the qualification & experience certificate in respect of all the Qualified Persons has not been to be enclosed as per Rule 15 of MCR, 2016. The Id proof may also be submitted.
- 40. Copy of scale relaxation in favor of M/s JSW Steel Limited for preparing plans and sections other than scale of 1:2000 for Nuagaon Iron ore Mine has not been submitted.

(Sudip Ranjan Mazumdar) Senior Mining Geologist

(Ramkishan R)
Senior Asst. Controller of Mines