



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. MP/A/20-ORI/BHU/2020-21

Date: 16.10.2020

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 Mining Plan of Gonua Iron Ore Mine along with Progressive Mine Closure Plan (PMCP), over an area of 88.516 ha (As per DGPS)/ 88.886 ha (As per ROR) in Sundargarh district of Odisha State, submitted by M/s JSW Steel Ltd under Rule 16 of MCR, 2016.

- संदर्भ: - i) Your letter No. JSW/S/O/2020/348 dated 09.10.2020 received on 12.10.2020.
ii) This office letter of even no. dated 12.10.2020.
iii) This office letter of even no. dated 12.10.2020 addressed to Director of Mines, Government of Odisha copy endorsed to you.

महोदय,

This has reference to the letter cited above on the subject. The draft Mining Plan along with Progressive Mine Closure Plan (PMCP) has been examined in this office by Shri Ramkishan R, Senior Asst. 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 Mining Plan in the light of the contents vide Annexure 1 and submit **three (3) firm bound and two (2) soft copies of the document in USB Pendrive/Flash drive (text in a single MS Word file, Annexure in PDF and the drawing/plates in Auto CAD compatible format or JPG format in resolution of 100x100 pixels should be submitted on same USB Pendrive/Flash drive)** within 7 (Seven) 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 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 final copies of the Mining Plan. It may be noted that no extension of time in this regard will be entertained and the 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 मीन) 2020

क्षेत्रीय खान नियंत्रक

Copy for kind information and further necessary action to Shri Pradeept Mohapatra, 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 Mining plan with PMCP of Goua Iron Ore Block over an area of 88.516 Ha (as per DGPS survey) / 86.886 Ha (as per ROR) in Sundergarh District of Odisha of M/s JSW Steel Ltd

GENERAL POINTS:

1. All the text, tables and annexures to be properly indexed/ numbered/ paged and signed by qualified person. Correct table reference number to be mentioned at all relevant places. All the certificates/annexures should bear dated signature. All the information on cover page has not been furnished as per the IBM Manual 2014. Sequence of paragraph and its numbering as per IBM Manual Appraisal MP 2014 has not been covered in text. All the headings as mentioned in the IBM Manual Appraisal MP 2014 should be furnished in all chapters in the text.
2. 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 of previous lessee i.e. 1.2 MTPA. Lessee has not mentioned that required statutory clearances will be obtained regarding the same. Need to do necessary corrections.
3. In page no.1 the details furnished regarding the history of mining lease is not relevant so may be omitted. The details regarding the present status of mining only should be given. In page no.9 it is mentioned as under para 1(b) the term captive category which has to be replaced with suitable term as prescribed by State Government in the relevant document.
4. The details regarding the use of mineral produced from the lease viz., whether the mineral to be used in the lessee's end use industry or will be sold in the open market should be elaborated with any conditions imposed by state government regarding the same in introduction with documentary evidence. The corresponding documents details such as NIT etc. Need to do necessary corrections.
5. Lessee is a company. Hence, all certificates, undertakings, consent letter etc. should be signed by the nominated owner only. Extract from the minutes of the Board of director meeting of M/s JSW Steel Ltd does not specify the Nominated Owner as Dr. Vinod Nowal. Further, in annexure 13, the information furnished is not relevant to nominated owner. Need to submit the Id, address and signature proof of the nominated owner. Need to do necessary corrections.
6. The name of the company as "JSW STEELS LTD" should be replaced with "JSW STEEL LTD" as per lease deed at all places of text, Plates and annexures. Need to do necessary corrections.
7. In Para 2.0, the boundary pillar Id and its coordinates should be rechecked and corrected with reference of authenticated DGPS survey map and same should be corrected in surface plan. Need to do necessary corrections at all relevant places in the document.

Geology and Exploration

8. The signed 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 Mineral Block Summary report also has not been submitted. Need to submit the same as annexure to the Geological report.
9. The exploration proposal submitted is not adequate to cover lateral extension for G1 level of exploration as boreholes at an interval of 100m have not been proposed at the section line 2525850N. Further, boreholes at coordinates (331550E, 2425100N) and (331550E, 2425200N) have not been proposed for the same. The Easting, Northing of UTM grid mentioned in 'm' is incorrect and should be replaced with Northing and Easting accordingly. The mineralized and non-mineralized area as demarcated in the Geological plan submitted with Geological report has not been marked in Geological plan of the mining plan. The existing boreholes and proposed boreholes for 2021-22 have been shown in same color. The color of the proposed boreholes is not distinctly different. Need to do necessary corrections.
10. The year wise exploration proposal has not been furnished in per the format specified in IBM appraisal of Mining plan 2014. Need to do necessary corrections.
11. In page 32, the reserve depletion figure during the period 12.06.19 to 31.03.20 has not been justified with required documents. The total reserve and resource figures after depletion till 31.03.2020 should match with resources reported in geological report. In page 33, in table showing reserve (122

category), +58% Fe should be replaced with +55% Fe as cut off is +55% Fe. In pg. 34, the lease area exploration as on date... has not been mentioned.

12. In the parameters considered for resource estimation, ultimate pit depth proposed has not been mentioned etc. The current survey is different in different plans and sections. Need to check and rectify the survey date. Need to recheck and rectify the estimation of reserve and resources by cross sectional method as per the provision of MEMC Rules 2015. In the table showing reserve and resources in page 35, the calculation of reserves and resources of iron ore both quantity and grade under various categories of UNFC separately for ore (+55% Fe) and mineral reject grade (45-55% Fe) have not been furnished. The categorization of UNFC furnished has not been justified. Need to submit the justification of UNFC codes as per UNFC guidelines. Need to do necessary corrections at all relevant places in the document.

MINING

13. The detail of existing quarries furnished in mining plan does not match with the quarry information furnished in Geological plan submitted in Geological report. In Geological Plan of Geological Report, five no of quarries have been shown whereas in mining plan only details of two no of quarries have only been furnished. All the parameters of existing quarries and dumps should be updates based on recent survey and be corrected in text and plates. The surface plan has not been signed by certified surveyor. Need to do necessary corrections at all relevant places of text and plates.
14. Justification for site selection for mining during the proposed plan period has not been furnished in view of mineral conservation. Proposed method of mining has not been furnished in light of development proposal i.e. annual production capacity, nos. of pits proposed for production, site of waste dump and other mine design parameters. Refer development sections for manganese quarry; the ultimate pit limit has not been marked correctly prevailed on mineralization. Need to do necessary corrections.
15. In the table showing year wise calculation of ore and mineral reject, the varying length influence considered has not been justified. The bulk density test report for waste from NABL accredited laboratory has not been submitted. Hence, calculation of waste (OB) in tones is not justified. Need to do necessary corrections.
16. In pursuant to the order dated 14.01.2020 passed by MoM, Gol, 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". Accordingly proposal has not been submitted in conceptual planning, conceptual plan and sections.

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

17. The year wise buildup of waste dumps has not been described in detail. The information should be furnished in the following table. The information about stacking of mineral rejects should also be furnished in similar table. No proposal should be given for dumping/stacking of mineral rejects/waste over minerals rejects stacks/mineral reject dumps of previous 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.

Year	Waste Generation (in m ³)	Waste Dumped (in m ³)	Dump Name	Location of Dump (coordinates)	Existing or new dump	Top RL of the Dump	No of terrace proposed.	Individual Terrace height	Slope of the terrace	Overall slope angle of dump

USE OF MINERAL and MINERAL REJECT

18. Use of the proposed produced mineral has not been in line with the terms and conditions specified in any of the relevant document by State Government regarding the use of the same. Copy of the same document should be enclosed.
19. Describe briefly the requirement of end-use industry specifically in terms of physical and chemical composition of the mineral with documentary evidence. Give detail of requirements for other industries, captive consumption, export, associated industrial use etc. in terms of physical and chemical composition of the mineral in your case it is by steel plant for captive consumption. Give details of processes adopted to upgrade the ROM with in lease area including mineral reject if any to suit the user requirements i.e. captive steel plant in terms of physical and chemical compositions viz.,

like beneficiation processes adopted and also efforts for complete utilization of ROM produced from mines in captive steel plant by blending of mineral, in mineral conservation point of view.

PROCESSING OF ROM AND MINERAL REJECTS

20. The material balance chart furnished is not justified in terms of utilization of end product obtained after processing in terms of size and grade. For example 10-80 mm lump utilization has not been furnished. Need to do necessary corrections in "use of mineral" chapter and at all relevant places in the document.

PROGRESSIVE MINE CLOSURE PLAN

21. The table showing calculation of financial assurance is not in the format specified in IBM appraisal of Mining Plan 2014. Need to do necessary corrections. Need to recheck the requirement of additional area in the same table.

FEASIBILITY REPORT

22. Feasibility Study report conforming to Part V of Minerals (Evidence of Mineral Contents) Rules, 2015 has not been submitted particularly with reference to Cost and revenue factors such as the derivation of, or assumptions made, regarding projected capital and operating costs, the assumptions made regarding revenue including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, final price offer 132% etc., the allowances made for royalties payable, both Government and private, Basic cash flow inputs for a stated period, Yearly planned production, Net Present Value (NPV) and Internal Rate of Return (IRR) of the deposit, intrinsic value of the deposit based on annual projected production. Market sensitivity study has not been submitted. The term IBM price to be replaced with ASP. 'Pre-feasibility report' should be submitted as per the provision of MEMC Rules 2015 instead of 'Feasibility Report'. Accordingly, necessary corrections should be made at all relevant places in the document.

23. The production figures in the feasibility report are not as per the insitu ROM production proposal furnished in mining chapter. Need to match the figures and do necessary corrections at all relevant places in the document. The proposed production and dispatch figures of mineral taken in to consideration while evaluating economics are not in line with the minimum production requirement as per schedule-D of MDPA. Further, the commencement of material for outside sale along with its quantity should be as per para 6.2 of MDPA for calculations. Need to do necessary corrections.

24. PLATES (General):

25. Date of survey is different in different plans. Need to recheck and furnish the last updated date of survey. Need to do necessary corrections in all plates.
26. Lease plan in favor of lessee (M/s JSW Steel Limited) authenticated by competent authority of state government has not been submitted. DGPS survey lease plan as submitted has not been authenticated by competent authority of state government.
27. The conventions provided under the Metalliferous Mines Regulations, 1961, shall be used in preparing all plans and sections. All plans and sections should comply with the provisions of Rule 32 of MCDR 2017. The plans and sections submitted should bear the certificate that -the plans and sections are prepared based on the lease map authenticated by the state government. All plans and sections should be signed with date by Qualified Person. Date of observation of Magnetic meridian should be shown in all plans.
28. With reference to CCOM Circular No 2/2010 and its addendum, the geo-referenced mining leases map superimposed on latest high-resolution satellite data has not been submitted.
29. The existing and proposed bench positions clearly with mRL to be mentioned in the all plans and sections.
30. All plans and sections should be signed with date by certified Surveyor, Qualified Person, Mine Manager, Mining Engineer and Mining Geologist

Key Plan:

31. The key plan has not been prepared as per the provision of rule 32 (5) (a) of MCDR 2017.

Surface Plan:

32. The quarries etc. have not been shown as per the field position/ information furnished in geological report. Need to update the same with latest survey. The plan should bear the signature of certified

surveyor. Surface right area has not been shown. Few boundary pillars should be correlated with some permanent ground features giving distance and bearing/direction. The Surface Plan should be prepared to satisfy the provision as laid down rule 32 (1) (a) of MCDR'2017.

Geological Plan & Section:

33. The Geological Plan should be prepared to satisfy the provision as laid down rule 32 (1) (b), (c) and (d) of MCDR'2017. Need to do necessary corrections.
34. The revised exploration as mentioned should be incorporated in geological plan. The proposed boreholes to be plotted in dotted lines in Geological sections along with proposed borehole number, RL and proposed closing depth at the bottom of the borehole. The year wise proposal for drilling to be shown in different contrasting color in both Geological Plan and Geological sections. The year wise color of the boreholes proposed in Geological plan should match with the plotted proposed boreholes in Geological sections. Need to do necessary corrections.

Development plan & Section:

35. Quarry name, existing and proposed year wise bench profiles, waste dump, mineral reject dumps etc. to be shown in the development plans and sections including legend.
36. The lithology of the area should be clearly shown in year wise development plan and sections in the area proposed for development.

Environment plan:

37. 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 of the lease area also to be shown on the plan. Air, water and noise monitoring stations to be shown in the plan. Wind rose diagram should be shown with predominate wind direction.

Reclamation plan along with sections.

38. 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. The proposals has not been supported with yearly plans and sections depicting yearly progress in the activities for land restoration/ reclamation/rehabilitation, afforestation, protective measures etc.,

FA Plan

39. The area under different heads of FA table should be properly shown in different hatching with present area and additional area in FA plan. The FA table has not been furnished.

S. Ranjan Mazumdar
16/10/20
(Sudip Ranjan Mazumdar)
Senior Mining Geologist

A. Daulid
16/10/2020.
(Ramkishan R)
Senior Asst. Controller of Mines