



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.bhubaneshwar@ibm.gov.in  
Plot No.149, Pokhariput  
BHUBANESWAR-751020

No. MPM/A/29-ORI/BHU/2021-22

Date: 21.03.2022

To

Shri Pramod Kumar Patra, Authorised Signatory,  
M/s Jindal Steel & Power Ltd,  
TRB Iron Ore Mines, P.o - Tensa  
Dist – Sundargarh, Odisha – 770042  
Email:- pramod.patra@jindalsteel.com

Sub: Approval of modification of Mining Plan of TRB Iron Ore Mine along with Progressive Mine Closure Plan (PMCP), over an area of 207.113 ha in Sundargarh district of Odisha State, submitted by M/s Jindal Steel & Power Ltd under Rule 17(3) of MCR, 2016.

Ref: - i) Your letter No. Nil dated 06.03.2022 received on 08.03.2022.  
ii) This office letter of even no. dated 08.03.2022.

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 14.03.2022 by Shri Kewal Krishan, Regional Mining Geologist and Shri S K Mahapatra, Assistant Mining Engineer. 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 (A4 size printable paper), plate/plan and Annexure 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) digitally signed soft copies of the document in USB Pendrive. The text of document should be in excel (.xls) and word format. The plates/plans are to be submitted in .kml/.kmz/.shp and .dwg format. All the annexures shall be submitted in soft copy.
- (iii) Financial assurance under Rule 27 of Mineral Conservation and Development (Amendment) Rules, 2021.

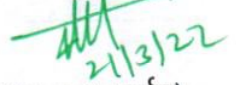
The aforesaid final copies of the document will be submitted within **15 (Fifteen)** days from the date of issue of this letter, for further necessary action.

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  
21/3/22

(बाबुलाल गुर्जर)  
क्षेत्रीय खान नियंत्रक

Copy for kind information and further necessary action to Shri P S Acharya & Shri S M Patro,  
M/s Gemtech Consultants Pvt Ltd, K-8/625, Kalinga Nagar, Ghatikia, Bhubaneswar-751019.  
Email- gemtech\_consultant@yahoo.co.in.

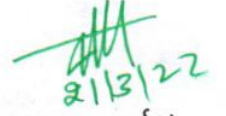
  
21/3/22

(बाबुलाल गुर्जर)

क्षेत्रीय खान नियंत्रक

N.O.O:

Copy for kind information to the Controller of Mines (EZ), Indian Bureau of Mines, CP-13,  
Sector V, Salt Lake City, Kolkatta- 700 091.

  
21/3/22

(बाबुलाल गुर्जर)

क्षेत्रीय खान नियंत्रक

Scrutiny comments on examination of Modification in Review of Mining Plan in respect of TRB Iron ore mine , over an area of 207.113 ha, Sundargarh District ,Odisha , of M/s. Jindal Steel limited , after the site inspection on 14/3/2022 and 15/3/2022.

**GENERAL INFORMATION**

- 1) The instant document is submitted for the year 2021-22 to 2024-25. Since the financial year 2021-22 is almost expired, hence the modification period is to be mentioned for the period 2022-23 to 2024-25. Similarly heading of the document is to be mentioned as Modification in review of mining plan instead of modification in Mining plan. Need correction at on cover page and also at all the relevant places of the document.
- 2) As mentioned in the document submitted that lessee has entered MOU with other lessee, namely KORP, NE and PTA to excavate the common boundaries with them by joint mining of iron ore under safety zone. Hence the mining proposals etc are to be given in the areas having common boundaries. The area where the boundaries are not common should to excluded from the proposals. The same is to be discussed in the introduction part also.
- 3) The total length of different leases area having common boundaries is to be discussed in the introduction part also and the same is to distinctly marked on the common joint working plans. Similarly co-ordinates of the common corner boundaries are to be furnished and same are to be shown on the plans also.
- 4) All statutory permissions from government authorities for under taking mining over the safety zone area having common boundaries are to enclosed as an annexure.
- 5) On the cover page the lease area mentioned is 207.113 ha , whereas on page no area 8, lease area furnished is 207.787ha . The change of area is to be corrected.
- 6) Under reason for modification, the land details schedule of the area proposed for mining , under the safety zone, to excavate common boundaries by joint mining is to be discussed. Copy of the land schedule is to be enclosed .
- 7) In introduction Part ,gist of the Feasibility study report specially with reference to economic viability of the project is to be discussed in terms of profit or loss.
- 8) Para 1.1, block year is to be corrected. Similarly in the nature of use of mineral is to be discussed with reference to the lease granted.
- 9) Para 1.3.5.1, Co-ordinates of all the boundary pillars as per DGPS plan, certified by the Government agency are to be furnished. Need correction.

**.GEOLOGY AND EXPLORATION:**

- 10) Para- 2.1.4.6, thickness of various litho units (minimum and maximum) as encountered in the bore holes drilled are to be furnished.
- 11) Para 2.2 , summary of the previous exploration during the last plan period is to be corrected at sub para no 2.2.1.1,2.2.1.7, 2.2.1.9 ,2.2.1.10 & also at all the relevant places of the chapter. Similarly, Para no 2.2.1.12 is not mentioned properly. Need correction.
- 12) Para 2.2.2 , summary of previous exploration ,before the last plan period , area covered is to be justified properly. Need correction.
- 13) Para 2.2.3 ,under ore body geometry & Av. grade, range of depth (minimum and Maximum) along with average depth of the ore body is to mentioned.



14) Para 2.2.4.1 methodology adopted, no of cross sections considered for calculation of reserves/resources along with cut –off grade consider is also to be discussed. It is also mentioned that ROM blocked under the safety zone with other leases have been kept under 121 classifications. But as noticed from the cross sections that the UNFC code 121 is not justified properly as per the statement made. Need correction at all the relevant places of the document.

15) It is also mentioned in the methodology that the reserves/resources have been re - estimated based on the 24 nos of boreholes drilled against the proposal. Details of these boreholes ie copy of Form I and Form J, along with analysis report from NABL are to be enclosed as an separate annexure. Similarly, they are to be distinctly marked on the geological plan and on cross sections also.

16) Para 2.2.5.5 Exploratory drilling; proposed period is to be corrected and only core bore holes should be proposed.

#### **BENEFICIATION**

17) Under para 3.5.1 , in case of dry processing , proper grade feed and size are to be given along with Product quantity/quality. Similarly in the material balance chart, proper grade etc are to be furnished.

18) Para 3.5.3 product quality furnished is contrary to the details discussed under para 3.3. Need correction/ clarification.

#### **MINING OPERATIONS**

19) In mining chapter, the proposal year are to be corrected as 2022-23 to 2024-25 instead of proposal year 2021-22 to 2024-25 . Need corrections at all the places in the document accordingly.

20) Para 4.2.1.1 , under inventory of existing pits and dumps, proper pits dimensions are to be furnished.

21) Para 4.2.1.2.2 and para 4.7.3 , stacks details/ existing stacks; The details of stacks furnished is to be revised as per the discussion held during the field visit. The area proposed for stacking of mineral is to be shown on the plan .

22) Para 4.2.2.2 , year –wise opencast development, table is to be revised with reference to the recovery calculation as discussed. Similarly co-ordinates with reference to the location of advancement are to be rechecked based on plans and are to be furnished again. In the said para details are missing for the year 2024-25 ie bench RL, direction and BD etc.

23) Para 4.3.2 Insitu mining , details in the table are to be revised based on the proposal period ie from 2022-23 to 2024-25. Need correction.

24) Under para 3.8, disposal method for tailing /rejects , area covered under tailing is not matching with the area shown on the table under mining in para 7.1 on page no 85

25) Para 4.4 , the machine calculation furnished for excavation and handling should be re checked keeping in view the total excavation from the mine.

26) Para 4.5.2 , blasting and explosive; the details furnished are not correct . the same are to be rechecked and revised

27) Para 4.7.2 It is shown on table that new dumps have been proposed to back fill , hence before backfilling of the quarry as proposed, it should be ensured that the ore have been exhaustion in terms of their depth & extension, keeping in view the interest of mineral conservation. It should also be ensured that during backfilling that the original sequence of lithology of the lease area is maintained. Similarly locations/ coordinates of these new dumps / back fill area are to be rechecked and furnished with reference to the plan also.

#### **SUSTAINABLE MINING:**

28) The details furnished under para 5.2.1 to 5.2.5.14 needs to be reviewed and rectified properly as per the discussion held during the field inspection.

#### **PROGRESSIVE MINE CLOSURE PLAN**

29) The details furnished under para 6.1 , status of land are to be rechecked with refernce to the details furnished on the page no 85.Need correction/justification.

30)Under para 6.2.2.1, proposal for ground water recharging is to be given.

31)Para 6.2.2.2.2 proposal for retaining wall along with garland drain is to be given in case of new dumps . Accordingly the same are to be shown on respective plan also.

32) Under 6.2.6, proposal for recreational facility is to be given.

#### **FINANCIAL ASSURANCE/PERFORMANCE SECURITY**

33) Under para7.1 the area put to use under different activities at the start of year is to be rechecked with reference to the plan enclosed. The FA is to be submitted based on the MCDR 2017, amended on 3/11/2021.

#### **REVIEW OF PREVIOUS PROPOSALS :**

34) The details of the plan period for which the review is carried out is to be mentioned as remarks.

#### **PLANS AND SECTIONS**

35) All plans and sections should be signed with date by Qualified Person.

36) All the plans should be submitted properly in hard copies along with their soft copies in KML/KMZ/SHP file (Geo-referenced) , except sections in Pdf/.dwg format. The following discrepancies have been found in the kml file submitted;

. Surface Plan (kml file)

- Existing quarry not shown properly in kml file of surface plan, every bench should be shown properly.
- All feature such as quarry/patch, stack yard, infrastructure which are shown in kml file should be properly named.
- Forest & non forest area not demarcated in kml file of surface plan., it should be rectified accordingly.
- Same color code should be used in KML file of each plan as submitted in hard copy.

Geological Plan-(kml file)

- Proposed & existing borehole should be depicted in geological plan with proper location in submitted KML file .
- Lithology not shown in submitted KML file of geological Plan.

Development Plan(kml file)

Existing quarry & dump should be depicted along with the proposal of each year in in KML file of development plan with different color code & also should be in form of closed polyline. Existing position & proposal should be clear. It should be rectify accordingly.

d. KML File of Financial assurance plan not submitted by lessee.

37) Key Plan: The plan should incorporate all features as mentioned in Rule 32 (5 )(a) of MCDR 2017.

38) Lease map of the area is to be enclosed with the document.

39) Surface plan: Nomenclatures of the dumps and stacks are to be furnished as per text. All the features shown on the surface plan are to be properly shown in the index also. Need correction. The surface plan is to be prepared as per rule 32(1)(a) of MCDR 2017.

40) Geological Plan : Dip and strike is to be marked on the plan distinctly. Boreholes drilled during the last plan period are to be shown distinctly on the plan and in the index. All the features/ lithology shown on the plan is to be clearly shown in the index also.

41) Geological sections: UNFC codes are not furnished correctly. Repetition of boreholes have been shown on sections no C-C' and D-D'. The same are to be corrected/ justified . Projections of bore body based on the boreholes data in all the cross sections are to be justified properly. Accordingly corrections are to be made at all the relevant places of document . Color codes marked on the sections are not matching with the index also.

42) Development plan & Section: The layout of the haul road for excavation proposal should be shown properly. In all the Development plans , Coordinates along with Northing and easting Line are to be furnished/drawn with reference to the development proposed for the particular year. Need correction.

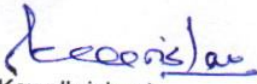
43) Common Working Development Plans and sections: Location of development shown in text under para 4.2.2.2 is not matching with year-wise plans . All the co-ordinates with reference to location of development are to be rechecked and furnished again. Similarly Coordinates shown on the grid lines are not correct . Need correction , at all the plans and also at other relevant place in the document. Demarcations of the lease name are not correctly mentioned with reference to lease direction . All required features /codes as shown on the plans are to be only shown in the index only . The other feature/codes shown on the index are to be deleted. Need corrections at all the plans and sections accordingly..

44) Environment plan: Environment monitoring stations are to be marked distinctly as per norms properly. The Environment Plan is to prepared as per the provision as laid down rule 32 (5) (b) of MCDR'2017.

- 45) ) On the PMCP plan, activities related PMCP are to be shown only . Need correction accordingly.
- 46) land use plan , area put to use under different activities is to be rechecked and furnished as per the text. Need correction.
- 47) Drone survey of the mining block, hundred metres outside the block boundary and submit the processed output [digital elevation model (DEM) and Orthomosaic] images obtained from such survey. The same should be submitted.

**ANNEXURE**

- 48) Proper legible copy of the all annexures are to be enclosed.
- 49) The final soft copy of the document should be digitally signed by QP.
- 50) All the text, tables and annexures should 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.

  
(Kewalkrishan)  
Regional Mining Geologist

  
17/03/2022  
(Sanjay kumar Mahapatra)  
Asstt. Mining Engineer