



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/28-ORI/BHU/2021-22

Date: 09.02.2022

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 Mining Plan of Kasia Iron & Dolomite Mine along with Progressive Mine Closure Plan (PMCP), over an area of 194.096 ha in Keonjhar district of Odisha State, submitted by M/s Jindal Steel & Power Ltd under Rule 16 of MCR, 2016.

Ref: - i) Your letter No. Nil dated 25.01.2022 received on 31.01.2022.
ii) This office letter of even no. dated 31.01.2022.

Sir,

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 based on site inspection carried out on 05.02.2022 by Shri Kewal Krishan, Regional Mining Geologist and Shri Ashok Kumar Pany, Assistant Mining Engineer. 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-I and submit:-

- (i) Three (3) firm bound copies of text (A4 size printable paper), annexure and plate/plan in hard copy. The consents and certificates by the Lease holders/Qualified Person 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/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.

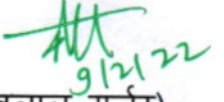
The aforesaid final copies of the document will be submitted within 07 (seven) days from the date of issue of this letter, for further necessary action.

The para-wise clarifications and the manner in which the deficiencies are attended should invariably be given while forwarding the final copies of the 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,
9/2/2022

(बाबुलाल गुर्जर)
क्षेत्रीय खान नियंत्रक

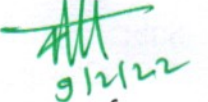
Copy for kind information and further necessary action Shri P S Acharya & Shri S M Patro,
M/s Gemtech Consultants Pvt Ltd, K-8/625, Kalinga Nagar, Ghatikia, Bhubaneswar-751019.
Email- gemtech_consultant@yahoo.co.in


(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.


(बाबुलाल गुर्जर)

क्षेत्रीय खान नियंत्रक

Scrutiny comments on examination of Mining Plan in respect of Kasia Iron and Dolomite mine , over an area of 194.096 as per DGPS and 194.196 as per ROR. Koenjhar District ,Odisha , of M/s. Jindal Steel limited , after the site inspection on 5/2/2022.

GENERAL INFORMATION

- 1) On the cover page, name of minerals are to be mentioned as per lease deed. Similarly area as per Record of Right (RoR) and as per DGPS is to be mentioned. Need correction at all the relevant places of the document.
- 2) On the at a Glance information, UNFC code is to be corrected as 122 instead of 112. Similarly mineral reserves/ mineral resources are to be furnished as per the table on page no 60 and 61. Need correction.
- 3) In introduction Part , on page no 7, gist of the pre-feasibility study report specially with reference to economic viability of the project is to be discussed in terms of profit or loss. Similarly production and dispatch as per MDPA is to be also discussed.
- 4) The final price offer details as per Mineral Auction Rules 2015 should be discussed in introduction with documentary evidence as annexure.
- 5) The surface right area granted should be furnished with documentary evidence.
- 6) Para 1.1 nature of use of mineral mentioned is contrary to use of mineral furnished on page no 8. Similarly name of associated mineral is to be given. Need correction.
- 7) Under 1.1.2 , production capacities of mine are to be proposed as specified in the MDPA. Need correction. Similarly, in the row, period for modification and reason of modification are to be deleted since this is a fresh grant.
- 8) Para 1.3.1 , approval of earlier mining plan are to be deleted.
- 9) Para 1.3.5.1 Location of boundary pillar no MLB-8 is not mentioned as per DGPS co-ordinates. Hence the co-ordinates of the entire boundary pillar are to be rechecked and furnished properly.
- 10) Para 1.3.6 Details of nominated owner mentioned in the text and annexure are not matching. Need correction at the relevant places of the document.
- 11) Para 2.1.2, Under details of Physiographic features and Infrastructures available in and around the lease, the distance from the lease area is to be furnished properly at all the relevant places as per the table.

GEOLOGY AND EXPLORATION:

- 12) Para 2.1.4.2 local Structure of the lease area /block is to be described as per the Geological report vetted by the state government.
- 13) Para- 2.1.4.3, thickness of various litho units (minimum and maximum) as encountered in the bore holes drilled are to be furnished.
- 14) Para 2.1.4.5, Extent of weathering, para 2.1.4.6 nature of mineral and para 2.1.4.7 extent of mineralization are to be discussed with reference to the mining lease area also.
- 15) Para 2.1.4.8 type of deposit as per MEMC rules is to be furnished.
- 16) Para 2.2.3 ,under ore body geometry & grade, range of depth (minimum and Maximum) along with average depth of the ore body is to mentioned. Need correction.
- 17) Para 2.2.4.1 , no of boreholes drilled ,under 100x50m and 200x100m grid interval are not mentioned correctly with reference to the geological report. Need correction at all the places of the document accordingly.

- 18) Para 2.2.4.1 ,as the resources are estimated by AUTO CAD , hence the depth given in the column is not correct . Similarly in the said Para , from CS 19 -19' to CS 23 -23', the bulk density and grade of the ore mentioned are not correct. Hence the entire calculation part is to be rechecked with reference to grade and bulk density furnished. Similarly the columns /rows which are not relevant in the calculation part should be removed. Need correction at all the places of the document accordingly.
- 19) Para 2.2.4.13, As per MEMC rules, the category of economic viability of the document as submitted, is under F2 axes , hence the UNFC codes mentioned on the table are not correct, the same are to be revised accordingly at all the places of text and plans.
- 20) Para 2.2.2.5, exploration proposal is to be revised as discussed in the field visit. The entire mineralized area is to be explored under G1 level of exploration (core bore holes) in accordance with the manner specified in MEMC rules 2015.

BENEFICIATION

- 21) Under para 3.3, Crushing section, Percentage of lump and fines as mentioned are to be described with justification/ documentary proof.
- 22) Under para 3.5.1 , in case of dry processing , proper grade and size are to be given. Similarly under para , 3.5.3, Product quantity/quality furnished is not matching with the abstract of finished product in the material balance chart. Similarly grade is to be furnished in the material balance chart.

MINING OPERATIONS

- 23) Para 4.1.1 and 4.1.2 , Existing and proposed methods of mining should be described in brief in the prescribed table.
- 24) Under para 4.2.1.1, details of pits , area covered under pits is not matching with the area shown on the table under mining in para 7.1 on page no 113. Need correction.
- 25) Para 4.2.2.2 , Year-wise open cast Development, Recovery percentage for ore and mineral reject is to be furnished. In the location of advancement column, the coordinates are to be furnished. Similarly ore to OB ratio is not furnished correctly. The same is to be rechecked and furnished accordingly. In the said table, details of top soil are not furnished correctly.
- 26) Under Para 4.3.3, the production from dump working for the year 2022-23 to 2023-24 and 2025-26 are given (grade as mentioned 45 to 55 % Fe), . The quantity and grade of the dumps are to be technically justified. The details of these dumps are to be mentioned in the Geology and Exploration chapter and also reserve to be estimated. Need correction at all the relevant places of the document accordingly.
- 27) Para 4.4 , the machine calculation furnished for excavation and handling should be rechecked keeping in view the total excavation from the mine.
- 28) Para 4.7.1 and para 4.7.3 , area furnished is not matching with the area shown in the table on page no 113, para 7.1 . Need correction/ clarification.
- 29) Para 4.7.2 , Waste dumping proposal have been given in the area having dolomite resources. Hence the re-handling of the waste dump should be proposed from the area having dolomite resources, in conceptual plan period for backfilling after exhaustion of mineral. Need correction at all the relevant places of the document.

SUSTAINABLE MINING:

30) 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

- 31) The details furnished under para 6.1 are not correct. Need corrections.
- 32) Under para 6.2.2.1, proposal for ground water recharging is to be given.
- 33) Para 6.2.2.2.2 proposal for retaining wall along with garland drain is to be given. Accordingly the same are to be shown on respective plan also.
- 34) Under 6.2.6, proposal for recreational facility is to be given.

FINANCIAL ASSURANCE/PERFORMANCE SECURITY

35) Under para 7.1 , area put to use under different activities at the start of year is not furnished correctly, such as tailing pond area etc . The entire area under different activities is to be rechecked and mentioned properly.

IMPACT ASSESSMENT

36) under para 9.2.1 , Details of environmental monitoring stations are to be furnished along with their location etc. similarly under Para 9.3.5.4 , present noise level observation are to be furnished.

PLANS AND SECTIONS

- 37) All plans and sections should be signed with date by Qualified Person.
- 41) All the plans should be submitted as hard copies along with their soft copies in KML/KMZ/SHP file (Georeferenced) , except sections in Pdf/.dwg format
- 38) Key Plan: Key plan should be plotted as per the DGPS coordinates. The key plan should incorporate all features as mentioned Rule 32 (5)(a) of MCDR 2017.
- 39) Lease map of the area is to be enclosed with the document.
- 40) Surface plan: Forest and non- forest area is to be marked distinctly. Lease boundary symbol etc are to be shown as per standard symbol. Temporary Stacking area shown on the plan is to be justified properly on the plan and index . Nomenclatures of the dumps are to be furnished as per text. The surface plan is to be prepared as per rule 32(1)(a) of MCDR 2017.
- 41) Geological Plan :. Dip and strike is to be marked on the plan distinctly. Exploration proposal is to be revised, to explore the potential area under G1 Level of exploration, as discussed in the field. Contour values are to be furnished on the contour lines. Index and lease boundary are to be shown properly.
- 42) Geological sections: UNFC codes are to be furnished. Proposed boreholes are to be marked based on the revised proposal. Accordingly corrections are to be made at all the relevant places of the document.
- 43) Development plan & Section: (i). UPL drawn on section no 11,12,13, 18 and 20 are to be corrected/ justified. UNFC codes are to be furnished on the development sections The layout of the haul road for excavation proposal should be shown properly. Symbol shown on the plan are not matching with the index. Need correction at all the plans and sections.

44) Environment plan: Environment monitoring stations are to be marked properly. The Environment Plan is to be 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.

50) land use plan , area put to use under different activities is to be rechecked and furnished as per the text. Need correction.

46) As per rule 34 A, the preferred bidders shall carry out a drone survey of the mining block granted through auction and upto 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.

47) KML file submitted by lessee are not in order.

a) Lessee has converted whole .dwg file in Kml format with all attributes, Index and other text ,for this kml file becoming very clumsy and not properly open. It should be rectified as per guideline.

b) Same color code should be used in KML file of each plan as per submitted hard copy.

c) Mining activity like dump, stack should not be filled with solid color/hatch, in submitted KML file.

d) Development Plan , 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

ANNEXURE

48) The final soft copy of the document should be digitally signed by QP.

49) The 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.

FEASIBILITY REPORT

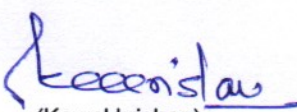
50) The heading of the feasibility report should be Prefeasibility report.

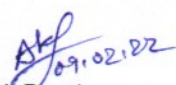
51) under 9.0 of the prefeasibility report , at page no 344 , this is to be clearly mentioned in the certificate " that the contents of the prefeasibility report as per part -V of MEMC rules are discussed/furnished correctly. Hence based on the Pre -feasibility study report, it is concluded that the project will be in profit or in Loss ". Need correction.

52) In the pre-feasibility report , cash flow chart for the project on page no 338 , are to be rechecked and furnished again.

53) 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.

54) As the said block is auction based on the Geological Report having 278.04 million tons of In-situ resources. In the present document submitted for approval, the proposal for re-handling of dumps working (grade 45- 55% Fe as mentioned) along with in-situ is also given. As all the payments made to state government are on the basis of in-situ resources (such upfront money etc) . Hence a No Objection certificate from state government may enclosed as an annexure regarding working of dumps for extraction of mineral.


(Kewal Krishan)
Regional Mining Geologist


(Ashok Pany)
Asstt. Mining Engineer