



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. MPM/A/11-ORI/BHU/2020-21

दिनांक / Date: 03.08.2020

To

Shri Manikanta Naik,
Power of Attorney Holder,
M/s Tata Steel BSL Limited,
Narendrapur, Po-Kusupanga,
Via-Meramandali, Dist-Dhenkanal,
Pin-759121, Odisha.

Sub: Modification of Mining Plan of Kalamang West (Northern Part) Block Iron Ore Mine over an area of 92.875 ha in Keonjhar & Sundargarh district of Odisha of M/s Tata Steel BSL Limited submitted under Rule-17 (3) of MCR,2016.

Ref: - i) Your letter no. nil dated 22.07.2020 received on 27.07.2020.

ii) This office letter of even no. dated 27.07.2020.

iii) This office letter of even no. dated 27.07.2020 addressed to the Director of Mines, Govt. of Odisha, copy endorsed to you.

Sir,

This has reference to the letters cited above on the subject. The draft Modification of Mining Plan along with Progressive Mine Closure Plan has been examined in this by Shri Kewal Krishan, Regional Mining Geologist and Shri Dayanand Upadhyay, Sr. Assistant Controller of Mines. 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 USB Pendrive/Flashdrive in a single MS Word file (the drawing/plates should be submitted in Auto CAD compatible format and JPG format in resolution of 100x100 pixels on same USB Pendrive/Flashdrive)** with financial assurance under Rule 27 of MCDR' 2017 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.

भवदीय / yours faithfully,

(HARKESH MEENA)

क्षेत्रीय खान नियंत्रक / Regional Controller of Mines

Copy for kind information and necessary action to:

1. Shri Chandrabhanu Dash, Qualified Person, Geo Consultants Private Limited, Plot No-853, Gobind Prasad (Medical Lane), Mahavir Nagar (Infront of Radhika Complex/Reliance Fresh), Laxmisagar, Bhubaneswar-751006, Odisha.

(HARKESH MEENA)
क्षेत्रीय खान नियंत्रक / Regional Controller of Mines

Scrutiny comments on examination of Modification of Mining Plan of Kalamang West over an area of 92.875 Ha in Sundargarh and Keonjhar District of Odisha State of M/s Tata Steel BSL Limited.

General

1. On cover page, lease period, phone no. and fax no. of registered office of the company and qualified person have not been furnished. The mining lease is to be granted for captive/end use purpose therefore it is to be described in introduction chapter, location of plant and its capacity with correlation of proposed production. The status of execution of lease deed and correspondence with State Govt. regarding change of name of ownership should be furnished.
2. Page no.-7, the registration number of the company under rule 45 of MCDR2017 is to be furnished. Page-10, the co-ordinates of the boundary pillar in terms of easting and northing are to be furnished along with longitude and latitude.
3. Extract from the minutes of the Board of director meeting of M/s Tata Steel BSL Ltd with list of Board of Directors, their phone no. address and declaration of nominated Owner to be furnished.
4. Sequence of paragraph, formats and its numbering should be covered as per IBM Manual Appraisal MP 2014 in all text part. All the headings, formats as mentioned in the IBM Manual Appraisal MP 2014 should be furnished in all chapters in the text.
5. The identity proof of qualified person may also be submitted along with their educational qualification and experience certificate.
6. The complete Geological Report including plates and annexure has not been submitted, it should be submitted with separate annexure. The term and condition issued by State Govt. for captive/end use should be described in text and copy of tender document to be enclosed in annexure. The details of installment of upfront payment and performance security paid by lessee should be furnished in annexure. All the annexures are to be properly indexed and signed by qualified person.
7. On page no.-6, it is mentioned that exploration proposal has been modified to bring the deposit under G1 category as per suggestion of GSI. Since this document is submitted to IBM for approval, hence the exploration proposal to bring the deposit under G1 is to be considered based on the MEMC rules 2015 only. Need correction.

Geology and Reserve:

8. Page no. 17, under the description of rock types, minimum and maximum thickness of various litho units as encountered in the bore holes drilled are to be furnished.
9. On page no.-19, structure of the block is not discussed in line with the GSI report submitted.
10. With reference to Rule 12 (3) of MCDR, 2017, the future exploration program need to be revised so as to carry out detailed exploration (G1 level) over the entire potentially mineralized area under the mining lease, within a period of five years from the date of opening of the mine after execution of such mining lease. Similarly in the table on pageno-26, grid spacing is to be furnished. The future exploration proposal (upto end of mineralization) is to be proposed as per MEMC rules 2015. The grid spacing is to be proposed at 50 meter or at closer interval as the iron ore deposit in this block characteristically belongs to stratiform folded and tabular deposits of irregular habit. Need correction in the text and all other relevant places of the document.
11. The proposed borehole locations along with Borehole Id, Bore hole Collar RL and estimated closing depth is to be considered based on the projection of ore body in adjacent bore holes as shown in the Geological Sections. Need correction in text as well as in plate.
12. The existing forest, non-forest and mineralized zone boundary should be shown over the Geological map in contrasting colours.
13. On page no.-22, in the table lease explored as per UNFC norms total reserve and resources are to be furnished correctly. Similarly updated date is to be furnished on the table.

14. The area explored under G1/G2....should be furnished as per as per Minerals Evidence of Mineral Contents Rules 2015.
15. Page no.-25, table is not furnished correctly, based on the level of exploration with reference to the threshold value of minerals declared by IBM as below:

Level of Exploration	Resources in million tons	Grade
G1 - Detailed exploration		
G2 - General Exploration		
G3 – Prospecting		
G4- Reconnaissance		

16. Page no.35-37, in calculation tables of reserve and resources, the UNFC codes have not been furnished. The same are to be furnished in text and geological section as per MEMC Rule 2015.
17. On page no.-32 in the table category wise updated reserve as per UNFC, under 122 grade wise reserves i.e +55% Fe and +45 to 55% Fe are to be shown separately. Need correction. Similarly updated date is to be mentioned on the table instead of earlier date.
18. The economic axis, pre- feasibility axis and geological axis are not discussed in the text. They are to be justified/ discussed properly and then UNFC codes are to be furnished.

Mining:

19. Justification of site selection proposed for mining has not been furnished with respect to advancement of pits, targeted quantity and its average grade in view of scientific mining.
20. Page-37, proposed method of mining should be furnished in light of development proposal i.e annual production capacity, nos. of pits proposed for production, site of waste dump and other designing parameters.
21. Page-39, it is mentioned that the iron ore of the mines is contains high silica average 5% SiO₂ and this can be mitigated by blending with low silica iron ore from other mines, which is not permissible. The blending proposal within the lease of different grade ores should be proposed for maximum utilization of low grade/ high silica content ore in view of mineral conservation.
22. Page 52, briefly describe the layout of mine workings, pit road layout, the layout of faces and sites for disposal of overburden/waste along with ground preparation prior to disposal of waste, reject etc.
23. Back filling proposal as furnished in development plan has not been explained in text. Exhausted area to be backfilled by OB/Waste to be specified with RL and area on year to year basis with description of the method & manner of disposal of waste.
24. Before backfilling of the quarry as proposed, it should be ensured the exhaustion of ore body in terms of their depth & extension in the interest of mineral conservation. It should also be ensured that during backfilling original sequence of lithology of the lease area to be maintained.
25. In conceptual mining plan, the life of mines has not been furnished correctly. Cumulative waste generation and backfilling and protective measures should be furnished properly. Restoration of safety zone and slope of the dump may describe properly.
26. 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". Accordingly it should be discussed during conceptual period.

Stacking of Mineral Reject/Subgrade and Disposal of Waste:

27. Proposed Sub-grade dump and waste dump may describe with its location along with their RL and co-ordinates in text. The top RL and its extension year to year basis to be depicted clearly on plans in different color codes. The proposed dumps should be outside the UPL.

28. Further, Build-up of dumps from year to year to be mentioned in text w.r.t. designed capacity of dumps, bottom and top mRL of individual terrace, dump slop, individual terrace height and slope with description of method & manner of disposal of waste should be mentioned.
29. The proposal for construction of retaining wall, garland drain may furnish yearwise in different colour codes in terms of their length width and height.
30. Before the proposed area is put in use for waste disposal and subgrade/mineral reject dumping, the area should be proved for non-mineralization.

USE OF MINERAL and MINERAL REJECT:

31. Use of the proposed produced mineral should be 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.
32. 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.

PROGRESSIVE MINE CLOSURE PLAN:

33. The proposed land use pattern furnished in table at page no.- 56, 85, 93 and 102 are not matched to each other. It should be re-checked and corrected accordingly.
34. Proposed monitoring station of air, noise and water should be described in text and their locations furnished in tabular form.
35. Page-97, socio economic para should be described population of nearby villages, male female ratio, rate of literacy with their occupation and employment.
36. Year wise plantation covering number of saplings to be planted, location and area covered may be furnished. Matured area of backfilling and dump slope should be stabilized with plantation.
37. Page-98, Para-8.3, It has been proposed to backfill the north eastern part of the quarry however back filling proposal of exhausted quarry has not been explained with their rehabilitation. The proposed backfilling, reclamation and re-habilitation to be carried out should be furnished as below:

Year	Pits/ Quarries	Area beginning of year(ha)	Additional degraded during year(ha)	Area to be reclaimed by backfilling(ha)	Area rehabilitated by plantation (ha)	Balance area at the end of year

38. Page no.-100-104, year wise proposal of mine closure plan as furnished in table is not correctly furnished. The year wise backfilled as is not matched which is furnished at page no. 98. In dump management and backfilled area the plantation should be proposed.

PRE FEASIBILITY REPORT:

39. The content of feasibility/pre-feasibility report and analysis of economic viability of the project is not described in detailed as per rule 16 and Part-V of MEMC Rule 2015. A Feasibility Study is a detailed comprehensive economic study of the selected development option for a mineral project. The economic viability of the project should be supported with NPV, IRR, Payback period by cash flow chart with total investment (upfront payment, performance security, expenditure incurred in lease deed execution, final price offered as a preferred bidder etc),

cost involved in environmental and others protective measures and clearances, operational cost, administrative cost, infrastructure, cost of end use, royalty, NMET, DMF, closure cost etc.

Plates:

40. The key plan has not been prepared as per the provision of rule 32 (5) (a) of MCDR 2017 particularly the boundaries of all villages and towns with their population, forests with tree density, approach road to lease area, Latitude/longitude of the extreme ML pillar coordinates etc. have not been marked in key plan. Wind direction may show through wind rose diagram in key plan and environmental plan.
41. Date of survey is furnished 18/02/2020 which is not acceptable. The plan and sections should be based on latest survey and same should sign by certified surveyor. CCOM circular no. 2/2010 and its addendum should be implemented.
42. In surface plan few pillars may be correlated with some permanent ground features giving distance and direction. Different land use may be shown with colour codes.
43. In the Geological Plan lease boundary is to be marked as per standard symbol. Dip & strike is to be marked clearly. Area under G1/G2/G3.. are to be demarcated. Revised exploration proposal while considering the nature of deposit is to be furnished in 50x50m grid interval. On the geological cross section i.e no. W02, W03 & W04 lithology in the bore holes intersections are to be plotted for the BH nos. OSKN54, OSKN 52, OSKN 47, OSKN 38 etc respectively. UNFC codes are to be furnished in all the cross-sections. In section W01 the UPL extended upto grid 2428300N is not matched with plan and this section line shown outside the UPL.
44. In development plan proposed benches RL should be clearly depicted. UPL Shown in red color. Proposed infrastructure, backfilling, and waste dumping should be furnished year to year basis in different color codes. The index as furnished is not clear. The year wise development as shown should be in bold color. In development section progress of backfilling and dumping retaining wall and garland drain have not been shown. It may corrected.
45. The Environment Plan as prepared should be satisfied the provision as laid down rule 32(5)(b) of MCDR2017. Surface features of adjacent mine has not been shown in buffer zone. The proposed and existing environment protective measures to be shown in environment plan. The drainage pattern of the lease area also to be shown on the plan. Over writing in plates (ENV. Pan & FA plan) should be omitted.
46. Reclamation plan, year wise progress of dumping, backfilling, stacks, afforestation using different color codes for easy understanding may be shown.
47. Conceptual plan may be prepared considering mineralization as revealed from the borehole logs. One longitudinal section may also be submitted. Direction of run off from the area based on surface contours may be shown on the plan and the sections.

← Keenan's / au
31/7/20

Dr
31.07.2020