

Scrutiny comments w.r.to Modification of Review of Mining Plan & PMCP of Noamundi Iron ore mine (1160.06 ha.) of M/s Tata Steel Ltd.(Plan Period 2020-21 to 2021-22)

A. TEXT:

1. On the cover page

(a) Mine Code not given.

(b) Category of mine as “A” fully mechanized may be written.

2. Page 17, para 3.1:-Date of approval of Mining Plan for the period 2017-18 to 2021-22 has not been given.

3. Chapter-1 (Geology and Exploration)

(a)The areas which are reported to be explored under G1 category, reports reserves & remaining resources under 121 & 221 category, where-as a feasibility report (F-1) has been submitted. Similarly the reserves & remaining resources under 122 & 222 category has been submitted where-as no pre-feasibility report has been submitted. Therefore, the resources & reserves are to be re-assessed & categorized strictly following the norms specified under Minerals (Evidence of Mineral Contents) Rules, 2015

(b) Both section wise & level wise calculation for estimation of the reserves & remaining resources needs to be provided.

3. Page 18,para 3.3 (i) Exploration:- The actual meterage during 2019-20 have been given as 1070.50m, whereas in the Annual Return for 2019-20 it has been given as 1049m.It may be reconciled.

4. Page 46:- (a) Table 1.4:- The bifurcation of Potential Mineralized area and Non-mineralized area is not matching with total area.(b) Table 1.4.1:-The area under G1,G2,G3 category are not tallying with Annexure XXXVII.

5. Page 48, Chapter 1, para (i) Future exploration: Table 1.6:- (a) Number of Boreholes proposed have been given as 78 nos., which includes the backlog of 22 nos. of Boreholes of previous year 2019-20 as per Approved Modification of Review of Mining Plan dated 13/08/2019.It may be mentioned in the remarks column.(b) Year-wise Name of Proposed Boreholes to be drilled may be given as per the Geological Plan.

6. Page 57,para (b) (i) In-situ Tentative Excavation (i) Table 2.1a to 2.1d:- (a) The ROM/Waste ratio should be given as per unit of ROM. (b)The description of the existing pits/dumps/mineral rejects stack/fines or lump stack may be furnished in the following table: -

Existing pits

Location Grid	Size of pit (in m.)		Surface Area covered (Ha)	Top RL In m	Bottom RL in m	No of benches	
	Length (m)	Breadth (m)				O.B.	Ore

7. Page 61 to 63: Table 2.3(a) to 2.3(g):- The R.L. should be from Top to Bottom.
8. Page 74; Dump Management (a) Waste dump no.3 may be renamed as Backfilled area. Accordingly Text & Table no.2.9, 2.10, 8.2.1, 8.2.2 may be modified.(b) Quantity of Jig Reject tailing have not been given.
9. Page 81, Conceptual Reclamation, Page 128, Flora and fauna: (a) Fruit bearing trees may also be proposed to be planted.
10. Page 81, Post Mining Reclamation of mined out area:- The location coordinates of the backfilled area during Conceptual Stage may be given.
11. Chapter4, page 89:- The existing Jig Reject Tailings as described at page 112 have not been discussed here.
12. Page 90, para (a), Table 4.0:- The details of Jig Reject tailings i.e. Location in local coordinate, area occupied, volume, quantity, Design capacity, have not been given.
13. Page 94, Table 4.7(c) Design details of Subgrade Dump no.3:- Instead of three terraces, four terraces may be made, since Terrace B is too high. Accordingly, Plan & Section (Plate No. MP/NIM/M3/6D/20) may be modified.
14. Page 96, Table 4.8(d), page 130,131:- Area nomenclature should be Proposed Backfilled area no.1, instead of Waste Dump No.3. Accordingly Table 4.9,4.10 , 4.11,8.2.1,8.2.2 may be modified.
15. Page 97, Para (e) Waste Management:- (a) Instead of Waste Dump No. 3, Backfilled area no.1 may be written.(b) In Table 4.11, Fruit bearing species of saplings may also be proposed to be planted.
16. Chapter 6, Page 112; para (c) Disposal method of Tailings/Reject:- (a) Total Quantity of Jig Reject tailings stacked in Hill No.5 have not been given.
17. Page 137, Table 8.3(b), Proposed reclamation measures for the dump.:- Waste Dump no.3 may be written as backfilled area no.1.
18. Page 142, Table 8.3.1, Summary of 2020-21 proposal (a) In the item for Dump Management ,Remarks column, Fruit Bearing trees may also be proposed.(b) For item Reclamation and rehabilitation by backfilling the details may be given in Length x Breadth x Depth. Instead of Waste Dump No.3, Backfilled area no.1 may be written.
19. Page 143, Table 8.3.2:- (a) Same as scrutiny comment no. 18(a) & 18(b) above. (b) For Dump management the no. of saplings to be planted on subgrade Dump no.1 & Waste Dump no.1& 2 may be given as 10,000 nos only.
20. Certificates /Undertaking /Consent may be given as para9.0 of Part B, and not Chapter 1, as per Universal Format for Mining Plan.
21. List of the plans and sections indicating volume I and Volume II should be submitted as Para 10 of Part B in the text also as per Universal Format for Mining Plan, 2014 and not as Chapter 2.
22. List of documents as Annexure should be submitted as Para 11 of Part B in the text also as per Universal Format for Mining Plan, 2014.

Plates:-

1. List of the plans and sections indicating volume I and Volume II should be submitted as Para 10 of Part B in the text also as per Universal Format for Mining Plan,2014 and not as Chapter 2.
2. Colour of Slime Dam may be given other than Blue and Green in all the relevant Plan & Sections
3. All the mine production & development plans/ sections shall show the present/ last position in a lighter shade / dim colour with the proposals for development & production in a darker shade/ dark color with a very clear cut index of it. The spot level of the benches must be clearly indicated.
4. Similarly all the waste dump/ sub-grade stacks/ backfilled areas shall show the present/ last position in a lighter shade / dim colour with the proposals for advancement in a darker shade/ dark color with a very clear cut index of it. The level of different terraces must be clearly indicated.
5. All the existing waste dumps/ sub-grade stacks/ backfilling plans shall clearly show the existing quantity of the material contained/ dumped in it with date with description of the type & quality of material in it with supporting documents.
6. The surface plan, surface geological plan, key plan and environment plan shall be updated strictly as per the provisions envisaged under rule 32(1)(a), 32(1)(b), 32(5)(a) & 32(5)(b) of MCDR 2017.
7. Key Plan :- (a) Air ,Water sampling stations are not shown in Noamundi Lease area.(b) More than one Noise and Soil sampling Stations should be shown.
8. Surface Plan (Dr no.MP/NIM/M3/02/20):- (a) On the eastern side of Waste Dump no.1 Toe wall and Garland Drain have not been shown.(b) Ground Control Point have not been shown in the Index.(c) Block IC have not been coloured as per Index.
9. Surface Geological Plan (Dr no.MP/NIM/M3/03/20):- (a) Number wise Proposed Boreholes with Name of Borehole during 2020-21 & 2021-22 as per Page no.48,Table no.1.6 of the Text has not been given.(b) A plan for detailed exploration (G-1 level) over the potentially mineralised area within the ML needs to be submitted in this proposal as per rule 12(4) of MCDR 2017 and the same shall be clearly shown in the geological plan.
10. The UNFC categorisation of the reserves has not at all been shown in the geological x-sections (both transverse & longitudinal). The same needs to be clearly indicated in the respective plans & sections.
11. The total forest area, diverted forest area for non-forest use & non-forest area needs to be clearly demarcated in the surface plan, geological plan, geological sections, development plans (year-wise) & reclamation plan.
12. Development Plan & Section of Western Pit of 2020-21(Dr no.MP/NIM/M3/5G/20)&Development Plan & Section of Western Pit of 2021-22(Dr no.MP/NIM/M3/5H/20)& Composite Development Plan & Section of Western Pit:- Ultimate Pit Limit have not been shown.
13. Part Surface Plan of Hill no. 5&6 (Dr no.MP/NIM/M3/2B/20):- (a) On the Eastern side of Waste Dump No.1, Toe wall and Garland Drain have not been shown.
14. Part Surface Plan of Hill no. 3&4 (Dr no.MP/NIM/M3/2A/20):- (a) Toe wall and Garland drain around Jig Reject Dump have not been shown.(b) Top R.L. of Jig Reject Dump have not been shown.(c) Instead of Waste Dump no.3, Backfilled area may be written on the plan and shown in the Index. Also, backfilled areas have not been shown properly.
15. Environment Plan (Dr no.MP/NIM/M3/08/20): (a) In the Name Plate Environment Plan has been written, but on the Top of the Plan, Surface Plan has been mentioned. (b) Only the existing surface features & protective measures

- already existing for protecting the environment needs to be shown in the environment plan. No envisaged proposals shall be shown in the environment plan. (c) Air, Noise Monitoring Station & Soil Sampling Stations have not been shown. (d) Contour Lines at 5m interval have not been shown.(e) Tree density of Forest Area, waste land, agricultural land have not been shown.(f) Road going towards Chaibasa & Barajamda have not been shown upto 500m Buffer Zone.
16. Reclamation Plan (Dr no.MP/NIM/M3/09/20): (a) The reclamation plan should clearly indicate the existing & future proposals for protection of the environment. The present existing surface features (including mine /dump/ stacks/ backfilling) may be shown in a lighter shade/ dim colour and the proposal at the end of this review period may be shown in the reclamation plan in a darker shade/ colour with a clear cut existing & future proposals for protecting the environment as envisaged at table no. 8.3.1 & 8.3.2. (b) On the Eastern side of Dump no.1,Parapet wall, Garland drain have not been shown. (c) Check Dam on the eastern side of settling pit near Boundary Pillar no. TSL7 have not been made. (d) Air Monitoring Station in Hill no. 3&4 and Hill no. 5 & 6 mining area have not been shown. (e) Approach road upto Subgrade Dump no.3 & Waste dump No. 4 have not been shown. (f) Pit no 7 have not been shown.
 17. Land use Plan (FY 2021-22& 2024-25):- Lease area of SKG & SKG have not been marked on the plan.
 18. An Autocad file of the Financial Assurance Plan shall be submitted in softcopy. The FA plan shall clearly show the existing & proposed land usages only for different entities (i.e. mining/ dumps/ infrastructure/ tailing pond etc.) as cited in the FA table in different colours & suitably indexed

Annexures:-

1. List of documents as Annexure should be submitted as Para 11 of Part B in the text also as per Universal Format for Mining Plan, 2014.
2. NABL Certificate w.r.to (i) Earth & Environment Lab has expired on 04/08/2020. Valid certificate may be submitted.
3. NABL Certificate w.r.to (i) Chemical Lab, Tata Steel Ltd. has expired on 13/11/2020. Valid certificate may be submitted.
4. Feasibility Report (Annexure XXIII):- It may be modified as per scrutiny comments given in the Text Part.