

SCRUTINY OF DRAFT MINING PLAN IN RESPECT OF AMPTIPANI BAUXITE MINE (26.30 HA) IN VILLAGE AMPTIPANI DISTRICT GUMLA STATE JHARKHAND OF SHRI VISHAL MAHENDRU SUBMITTED UNDER RULE- 17(2) OF MCR, 2016.

TEXT:

1. Cover page: Document in support of extension of lease period up to 15.3.2035 needs to be submitted.
2. As per office record, the submission of document for approval was due on 01/12/2014 containing the proposals from 2015-16 to 2019-20. As the year 2015-16 has already been lapsed, now the document submitted for approval should be from 2015-16 to 2019-20 instead of 2016-17 to 2020-21. The document should contain actual work done for the lapsed period i.e 2015-16 and proposals for the remaining period.
3. Jungle Jhari area has not been shown on the lease area map.
4. The details of land acquired along with supporting document should be furnished in the submitted document.
5. Chapter 1: General: (f) Name of recognized person: Rule 22C of MCR, 1960 may be changed in view of amendment of MCR,1960.

6. Chapter: Location & Accessibility:

- a) Lease details: Name of the mine: The PIN code no. is not mentioned.
- b) Lat/Long of any boundary point: BP-1: The latitude and longitude of the BP 1 is not matching with the latitude and longitude given in the authenticated lease area plan enclosed as annexure 2.
- c) Topo sheet no. with Lat/Long of all corner boundary points/pillars: The topo sheet no. mentioned as 73 A/7 where as in the key plan it is mentioned as 73A/3 & A/7. May be corrected.
- d) The latitude and longitude of the BP no. are not matching with the latitude and longitude of BP given in the authenticated lease area plan enclosed as annexure 2. Also the latitude and longitude of the BP no. are not matching with the co-ordinate of BP given in the Surface plan, Geological plan, year wise development plans (2016-17 to 2020-21), Env. management plan, Conceptual plan, Financial Assurance Plan etc. Same may be corrected.
- e) Photographs of more boundary pillars should be submitted with the document.

7. Chapter 3: B. Excavation:

- a) Page no. 8, 9 and 10: Actual period of discontinuance of mining operation may be furnished.
- b) In the table given under item C (Reclamation) and D (Afforestation), actual figures for the year 2010-11 and 2011-12 may be furnished.
- c) Item (D) Afforestation: Sentence may be corrected under 'as achieved'.
- d) Lapsed period: 2015-16: Afforestation: Sentence may be corrected.
- e) Item 3.4: Copy of letter no. BIH/GML/BX/215/RRO dated 19/9/2014, BIH/GML/BX/215/RRO dated 01/06/2016 and reply of letter dated 01/06/2016 are not enclosed in the annexure 18.

8. PART A: CHAPTER 01: GEOLOGY & EXPLORATION:

- a) Item d): Name of prospecting/exploration agency: Name of lessee has been given as prospecting/exploration agency. The name of the agency who has carried out the exploration in the form of DTH should be given.
- b) Item i) Location of the 5 nos. of bore holes proposed to be drilled during the year 2016-17 in the unexplored area at 100mx100m are not shown in the Geological plan (plate no. 4) as mentioned.

c) Item k: Depletion in mineable reserve: In the approved mining plan total mineable reserve mentioned under 111 & 122 is 8,13,734 tonne and after considering 20% intercalated waste, recoverable reserve arrived at 65,0987 tonnes. After depletion of production of 71347 tonnes up to 31/3/2016, the balance reserve as on 01/04/2016 has been mentioned 5,79,640 tonne as "Balance Proved Geological Reserve". Same may be corrected.

d) Fresh reserves established category wise: In the Scheme of mining approved on 04/04/2013, reserve was calculated taking influence area of 50mx50 on each side of bore hole for G1 and further 50mx50m was taken for G2 category of reserve/resource. Now fresh reserve / resource has been calculated taking influence area beyond 25m from the quarry face and bore hole for G1 and further 25m influence area for G2 category of reserve/resource. The basis considered for calculation of fresh reserve may be clarified.

e) Page 21: Repetition of sentence in the last para.

f) Page no. 25: The table for estimation of reserves and resources may be corrected as per prescribed format.

9. Chapter 2.0: MINING:

a) Page no. 28: Bench design & formation: last sentence is incomplete.

Dump re-handling:

a) Page no. 30: Dump no. to be handled during the year 2017-18 has not been mentioned in the table.

b) Bench development over the next five years: Year 2016-17: Proposal for dump re-handling of 17415 m³ during 2016-17 has been given in the table under dump re-handling. But same has not been discussed in the text under year wise development programme 2016-17.

c) Bench development over the next five years: Year 2017-18: Proposal for dump re-handling of 13260 m³ during 2017-18 has been given in the table under dump re-handling. But same has not been discussed in the text under year wise development programme 2017-18.

Under this part, utilization and place of location of utilization of old dump material may also be discussed.

Haulage and Transport equipment:

The no. of tippers to be loaded with excavators: Calculation for top soil & OB removal has been given but calculation for Bauxite production has not been given. The same may also be incorporated.

The loading time has been taken as 3 minutes, whereas cycle time for each bucket has taken as 30 seconds in previous paras. The calculation needs to be explained clearly.

Drilling and Blasting:

a) Page no. 40: Calculation for arriving powder factor 5t/kg for OB removal and 7t/kg for bauxite production may be explained.

b) Page no. 40: Name of slurry explosives may be mentioned.

c) The blasting agreement with M/s Hiralal Agencies Pvt. Ltd. is valid upto 30/03/2016 as per the document enclosed in Annexure 20. Valid agreement may be enclosed.

Conceptual Mine Planning:

a) Page no. 42: Total generation of waste during the life of the mine: Re-handling of dump mentioned under part 'Dump re-handling' during 2016-17 and 2017-18. But dump re-handling during 2017-18 has not been mentioned in the table.

The same table given in page 50, 61, and 63 may also be corrected accordingly.

Reclamation and Rehabilitation:

Land use pattern: a) Calculation of area for forest and non-forest in the table 'Existing land use pattern', 'After 5 years of plan period', 'Year wise land use' and 'land use after the life of the mine' may be checked and corrected.

The same table given in page 57 and 62 may also be corrected accordingly.

Environment:

The local / hindi name of the species recommended for plantation in the mine lease area may also be given.

10. Chapter 3.0: MINE DRAINAGE:

Item c): Quantity and Quality of water: It was observed accumulation of rain water in the quarry no. 3. During monsoon season accumulation of rain water cannot be avoided. But arrangement of dewatering pump not described in Machinery chapter which may be incorporated.

11. Chapter 7.0: OTHERS:

Site services- The site services such as Rest shelter, First aid center, potable water storage point etc. are not shown in the surface plan. It is mentioned that required services are provided from a house situated at Netharhat, 20 km away from the lease area. Chapter may be recasted.

12. Chapter 8.0: PMCP:

a) Human Settlement & Demographic profile- The distance of nearest health centre, bank, post office, school etc. may be given under this para.

b) Land environment (Land scape)- Conversion of vacant area into water reservoir has not been proposed and shown in any plan. The proposal if any may be reflected in relevant para and plan

c) Annexure – 19, copy of the letter regarding surrender of the area 8.41 ha (jungle jhari) as mentioned has not been enclosed.

d) Recreation facility- Recreational facility to be provided by the lessee for mine workers and local villagers may be given.

e) Page 60: Production: Production figure 131935 tonne may be checked and corrected.

f) Summary of year wise proposal for item 8.3: Proposal of number of plants for the year 2017-18,2018-19, 2019-20 may be checked with "Details of Afforestation Scheme" on page no. 46. In page no. 68, year 2019-20 may be corrected as 2020-21.

g) Item 8.3.5: Summary of year wise proposal for item 8.3: Under item 'Reclamation & Rehabilitation by back filling' rehabilitation by making water reservoir shown as 'Nil'. The area within the lease could have been proposed for water reservoir/water harvesting system. There is also wide variation in the cost figure from year to year.

h) In page no. 69, item no. 1.3 and 1.4 may be corrected as 8.4 and 8.5.

i) Item 8.6: Financial Assurance amount in word may be corrected.

10. PART B:

The certificates/ undertakings/ consents may be arranged as per serial no. instead of writing 'is attached below'.

(11) In case of individual or partner, a declaration/affidavit should be submitted to know whether he is working in other firms/company/organization etc.

(12) The photo copy of the illegible declaration is enclosed as annexure-5; instead a legal heir certificate in favour of Shri Vishal Mahendru should be enclosed.

(13) The production reported for the period from 1985-86 to 2014-15 has been enclosed as annexure-8, instead the same upto the year 2015-16 should be submitted and the annexure may be revised accordingly. Besides, the waste materials generated during the aforesaid period may also be furnished by adding one more column right to the table for more informative.

(14) Litho logs for the already drilled boreholes are enclosed as annexure-10 but the holes are coring or non-coring type has not been mentioned. Moreover, no photograph of the borehole logs has been enclosed, which should be submitted.

(15) The chemical analysis report of bauxite samples from TCRC has been enclosed as annexure-11 but the date of analysis is missing in the report and without date, the same is not acceptable. Besides, the NABL accreditation certificate issued in favour of TCRC has already lapsed on 17.03.2013, thereby the authenticity of such accreditation is invalid.

(16) The excavation planning for the period from 2016-17 to 2020-21 has been computed & enclosed as annexure-13 but the length, width of benches proposed in topsoil, overburden & bauxite has not been furnished, which may be mentioned. Besides, the location co-ordinates & the cross sections considered for the purpose is missing, which should also be furnished by adding more columns in the tabular annexure. Moreover, the recovery of bauxite ore is considered as 80% but the basis on which such recovery is considered should be justified with valid reasons. Likewise, the waste generation is indicated to be 20% but the basis for such generation has been considered also not mentioned, which should be furnished indicating the grade of such waste material. Besides, the calculations given for excavation planning for the period from 2016-17 to 2020-21 may also be revised for the period from 2015-16 to 2019-20, since the scheme of mining approved in the last occasion was valid upto the financial year 2014-15. Accordingly, necessary corrections/modifications may also be made in connected paras in the text relevant plates.

(17) The consent to operate enclosed as annexure-17 has already lapsed & cannot be considered. Besides, an application submitted to JHSPCB for the purposed enclosed as annexure-17A also not taken into account, thereby a valid consent to operate the mine from Jharkhand State Pollution Control Board should be obtain and enclosed along with the document for ease in monitoring.

(18) The copies of the violation letter and reply letter thereof for the years 2010 to 2013 has been enclosed as annexure-18, instead the copies of violation letters, show-cause notices issued by IBM and compliance status thereof for the last five years upto 2015-16 should be submitted for more informative.

(19) A copy of the agreement for carrying out blasting operations in the mine is enclosed as annexure-20 but the copy of the explosive procurement license of the 2nd party enclosed along with he referred annexure is not legible, thereby a fresh copy of the same with its validity as on date should be submitted.

(20) The surface water analysis report, noise analysis report and ambient air quality analysis report enclosed as annexure-21 are very old, analysed during the year 2014, which is not acceptable, instead, the same should be replaced by a fresh report. Besides, the analysis report for soil & ground vibration has not been enclosed and the same should be submitted.

(21) Few photographs showing the status of existing quarries, dump & few boundary pillars has been enclosed as annexure-22 but no photographs in support of existing status of exploration, reclamation & rehabilitation etc. have been enclosed.

(22) In the contents for list of annexures, it is mentioned that, the photo copy of factory details is enclosed as annexure-26 but in the enclosure side no such annexure is seen, thereby necessary corrections/incorporations may be made accordingly.

(23) The achievements on account of exploration, development, production, reclamation, rehabilitation and afforestation during the year 2015-16 has not been given, which should be furnished and the para may be revised accordingly. (Para 3.3)

(24) The topography, drainage, vegetation & climatic condition of the unspecified area has been furnished, which is not proper, instead the name of the lease area indicating the location of the bauxite plateau should be clearly indicated. Accordingly, the same may also be furnished in connected paras in the text for more informative. [Para 1.0(a)]

(25) The average rainfall data from January to December has been furnished in tabular form in the page under reference but the data pertains to which calendar year has not been specified. (Page No.15)

(26) Under the heading of the para, **local geology** of the unspecified area has been furnished; instead, the name of the area should be specified. [Para 1.0(c)]

(27) Details of the existing quarries available in the lease area have been furnished but the location co-ordinates of such quarries is missing, which should be furnished for more informative. (Page No.17 & 18)

(28) The cut-off grade of the bauxite is missing in the page under reference and the same should be furnished. (Page No.19)

(29) Under the heading **Bench Design and Formation**, the height & width of the benches proposed to be made in topsoil, overburden and in ore zone has not been specified, which should be mentioned. Besides, the length of all the proposed benches may also be furnished. (Page No. 28)

(30) (i) Under the heading **In situ Tentative Excavation**, the proposed status of Soil/OB/SB/IB/ Ore generation has been furnished in tabular form but the bench/RL of the excavation planning for each year has not been given, which should also be furnished by adding one more column in the table. Moreover, the recovery percentage of bauxite and waste generation has not been furnished, which should be indicated. Accordingly, corresponding incorporations/modifications may also be made in connected paras in the text & relevant plates. [Para 2.0(B)(I)]

(31) The dump-3 has been proposed to be re-handled during the year 2016-17 but the very purpose of such re-handling also not furnished, which should be furnished by adding one more columns in the table given in the para under reference. Besides, the name of the dump proposed to be re-handled during the year 2017-18 is missing in page no.30, which should also be furnished indicating its location co-ordinates for ease in monitoring. [Para 2.0(b)(II)]

(32) The name of the quarry(s)/location co-ordinates of the proposed workings has been furnished but the direction of advancement of quarry faces has not been given, which should be mentioned for more informative. Besides, the tentative dimension of the benches proposed to be made in topsoil, overburden/morrum & bauxite ore zone may also be specified. All should be presented in tabular form. In the light of the above, the information furnished in para 2.0(e) may also be revised. [Para 2.0(d)]

(33) The para is meant for conceptual mine planning, whereas, no information regarding the same has been furnished. Therefore, the excavation planning beyond the proposed mining plan period should be furnished on account of development, production, dumping, reclamation, rehabilitation & afforestation up to the life of the mine. Besides, it is also found that, the occurrence of bauxite is found below the lairs of topsoil/overburden but the same has not been discussed in the refer para. Therefore, the factual information about the topsoil/overburden is required to be furnished indicating, the quantities of topsoil, morrum/laterite proposed to be generated by end of the conceptual period supported by calculations for more informative. [Para 2.0(f)]

(34) In 3rd table, the waste materials proposed to be generated in each year of the ensuing mining plan period has been furnished but the location co-ordinates and cross sections considered for the purpose is missing, which should be furnished by adding one more column in the table. (Page No. 42)

(35) In 1st table, the extent of area proposed to be reclaimed in each year of the ensuing five year period has been furnished but the location co-ordinates and cross sections considered for the purpose is missing, which should be furnished by adding one more column in the table for ease in monitoring. (Page No. 43)

(36) The plantation schedule for each year of the ensuing five year period has been furnished in tabular form and the plantation has been proposed along the 7.5m barrier zone, instead of over the backfilled area and the reasons for the same also not given. Therefore, the para may be revised accordingly. (Page No.46)

(37) The quality of water encountered in the area is missing, which should be furnished for more informative. [Para 3.0(c)]

(38) The quantities of topsoil proposed to be generated in each year of the mining plan period has been furnished in 2nd column of the first table but the location co-ordinates/cross sections considered for the purpose is missing, which should be furnished by adding one more column right to the table. [Para 4.0(a)]

(39) Under the heading **Manpower deployment**, a full time Mining Engineer holding degree in mining engineering as required under Rule 42 of MCDR, 1988, has not been proposed which should be done and the para may be revised accordingly. (Page No. 53)

(40) The extent of area proposed to be degraded in each year of the mining plan period has been furnished in 4th table given in the page under reference but the name of the quarry(s) is missing in the table, which should be furnished. Besides, quarry wise reclamation, rehabilitation, restoration & afforestation for each year may also be furnished. All should be furnished in tabular form and rest of the things should be erased. (Pno.62 & Para 8.3.1)

PLATES:

The Geo-referenced mining lease map prepared using DGPS shall be superimposed on Geo-referenced vectorised cadastral map shall have to be submitted in compliance to CCOM's circular no. 2/2010, dated 06.04.2010 and its addendum dated 21.09.2011& 11.06.2014. The above map will be base for preparation of all statutory plans as required under Rule-28 of MCDR, 1988.

Key Plan (Plate no. 1): a) The topo sheet no. mentioned in the text is 73 A/7 where as in the key plan it is mentioned as 73A/3 & A/7. Same may be corrected.

b) All the latitude and longitude points should be mentioned in the key plan.

Authenticated lease area map: a) Co-ordinate of the boundary pillars are not matching with the co-ordinate of the boundary pillars given in the text at page no. 5 and also with the other plans such as surface plan, geological plan, year wise development plans etc. Same may be corrected.

b) The plate no. given as annexure 2 which may corrected.

Surface Plan (Plate no. 3): a) All the three permanent ground control points have been taken from Karkatpat village hut but the same has not been shown on the plan. Therefore, atleast three permanent ground control points situated outside the lease area should be selected and latitude & longitude of these ground control points may be furnished. Besides, these ground control stations need to be linked with the boundary pillars.

b) The plan is not having the name and signature of the surveyor.

c) As per the scheme of mining approved on 4/4/2013, there was proposal to produce bauxite in quarry no. 5 from DTH no. 3 and 5 in between grid lines 100N to 200N and 00 to 200W at east extension of previous year development of lease area. Now it is observed that the quarry no. 5 has been worked up to the boundary pillar no. 14 and 15, beyond the proposed area. Same may be clarified.

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d) The dumps should be clearly mentioned whether it is top soil dump or waste dump and accordingly it should be shown in the index of the plan.

Geological plan (Plate no. 4):

a) The location of the 5 nos. of bore holes proposed to be drilled during the year 2016-17 in the unexplored area at 100mx100m are not shown in the Geological plan as mentioned in the text.

b) The GPS co-ordinates of proposed bore holes should be given on the plan as well as in para (i) of the chapter Geology and Exploration.

c) The water logging in quarry has not been shown.

Conceptual Plan (Plate no. 12):

a) Index of the plan for plan period back fill may be corrected.

b) The water logging in quarry has not been shown.

c) The location of proposed bore hole locations should be marked on the plan.

Financial Assurance Plan (Plate no. 14):

Index of the plan for plan period back fill may be corrected.

GENERAL:

All the tables furnished should be numbered for ease of reference.

Typing mistakes should be corrected.

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