

**SCRUTINY COMMENTS ON EXAMINATION OF MODIFICATION IN THE APPROVED MINING FOR JOBHIPAT BAUXITE MINE OF SHRI C.M.GUPTA, LEGAL REPRESENTATIVE LATE O.P.GUPTA, OVER AN EXTENT OF 129.445 HECTARES, LOCATED IN NARMA VILLAGE, UNDER BISHUNPUR P.S OF GUMLA DISTRICT OF JHARKHAND STATE, SUBMITTED UNDER RULE 22(6) OF MCR, 1960.**

(1) The DGPS surveyed map/plan in compliance to CCOMs circular No.2/2010 and its addendum dated 21.09.2011 & 11.06.2014 regarding geo-reference cadastral map has not been submitted. Moreover, the undertaking submitted in compliance to the CCOM's circular No. 2/2010 is not acceptable at present.

(2) The photo copy of the death certificate of Late O.P. Gupta & legal succession document is enclosed as annexure-IA, instead a legal heir certificate in favour of Shri C. M. Gupta should be enclosed for clarity.

(3) Father's name of the applicant furnished in the PAN card & Voter ID enclosed as annexure-1B are not matching, which should be corrected accordingly.

(4) The Form-D, enclosed as annexure-2 is not clearly legible, which should be replaced by a fresh legible copy for clarity.

(5) Litho logs for the already drilled boreholes are enclosed as annexure-6 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.

(6) The borehole analysis report has been enclosed as annexure-7 but the date of analysis is missing in the report, which should be incorporated.

(7) The reserves & resources of quarries located in forest area and the DTH holes drilled in the forest area have been computed in the enclosed annexure-8, instead the same for the non-forest area only need to be calculated and furnished. Besides, the reserves/resources have been calculated in the area method, instead the same may be computed by cross sectional area method considering the length of influence and depth of bauxite occurrence in the existing quarries/boreholes.

(8)The excavation planning for the period from 2016-17 to 2019-20 has been computed & enclosed as annexure-9 and on examination of the same it is found that, the recovery of bauxite is considered as 80% but the basis on which such recovery is considered has not been mentioned. So, also the grade of the recoverable bauxite may be furnished supported by authenticated chemical analysis report. Likewise, the waste generation is indicated to be 20% but the basis for such generation may also be furnished indicating the grade of such waste material. The calculations given for excavation planning for the period from 2017-18 to 2019-20 furnished in annexure-10, 11, 12 & 13 may also be revised. Accordingly, necessary corrections/modifications may also be made in connected paras in the text relevant plates.

(9) An application has been made to Jharkhand State Pollution Control Board for obtaining NOC, dated 26.05.2012 has been enclosed as annexure-15 but the status of such application is not known. Moreover, a valid CTO should be obtained from JHSPCB and enclosed along with the modification document for ease in monitoring.

(10) The photo copy of the TOR, dated 08.10.2014 has been enclosed as annexure-16; instead a copy of the MoEF clearance should be enclosed.

(11) Few photographs showing the status of existing quarries, dump & few boundary pillars has been enclosed as annexure-18 but no photographs in support of existing exploration, reclamation & rehabilitation etc. have been submitted.

(12) As indicated in the enclosed annexure-24, an extent of 95 acres has been applied for surrender to the DFO, Ranchi West division but the same has not been mentioned in the front cover of the document. Besides, the FMCP for the surrendered portion of the lease area also not submitted.

(13) The ambient air & noise analysis report, dated 01.11.2014 has been enclosed as annexure-26, which is very old; thereby a fresh & latest report for the same should be submitted for ease in monitoring.

(14) The copy of the Bank Guarantee valid upto 31.03.2017 has been enclosed as annexure-27, whereas, the modification in the approved mining plan has been submitted upto 31.03.2020, thereby the bank guarantee should be revised matching to the ensuing modification period, replacing the enclosed one for clarity.

(15) The chemical analysis report of bauxite samples from TCRC has been enclosed as annexure-28 but the report is very old analysed on 09.04.2013, which is not acceptable, thereby a fresh report to that effect should be submitted. Besides, the NABL accreditation certificate issued in favour of TCRC has already expired on 17.03.2014; thereby a valid accreditation may also be submitted for its authenticity.

(13) The Form J for drilling 30 DTH holes, dated 17.03.2011 has been enclosed as annexure-30 but the Form K for already drilled DTH holes has not been enclosed, which should be submitted.

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

(15) (i) The **actual** achievement on account of developmental activities for the years 2009-10 to 2011-12 has not given, which should be furnished. (ii) The developmental activities proposed during the years 2012-13 & 2013-14 has been furnished but the actual achievements thereof has not been given, which should be furnished indicating the reasons for deviation if any. (iii) Under the heading, **as achieved**, the status of undone exploration during the last approved scheme of mining period has been furnished, rather the actual status of development done during the years 2012-13 & 2013-14 should be furnished. In addition to the above, the actual achievement in developmental activities during the years 2014-15 & 2015-16 may also be furnished in a separate table. [Para 3.3(ii)]

(16) Year wise generation status of soil, overburden & intercalated waste etc. for the years 2012-13 & 2013-14 has been furnished in tabular form but it is not known whether the same is for proposed once or for achieved once should be clearly indicated. If the figures are for proposed once, then achievements thereof for the same should be furnished in a separate table or adding more columns in the referred table. Besides, the actual generation status on the above account for the years 2009-10 to 2011-12 may also be furnished for clarity. In addition to the above, the actual quantities of soil, overburden & intercalated waste generated during the years 2014-15 & 2015-16 may also be furnished in a separate table. (Page No. 8)

(17) The proposed production for each year of the last approved scheme of mining has been furnished in tabular form but on examination of the table, it is found that, exact quantities of production achieved during the years 2009-10 to 2011-12 has not been furnished instead, it is mentioned as **actual**, which is not correct. Therefore, the actual quantities of bauxite production achieved in each year during 2009-10 to 2011-12 should be furnished. Besides, the achievements, thereof for each year during the last approved scheme of mining period (2012-13 & 2013-14) may also be submitted. In addition to the above, the actual quantities bauxite produced during the years 2014-15 & 2015-16 may also be furnished in a separate table. [Para 3.3(iii)]

(18) The proposed plantation schedule for each year of the last approved scheme of mining has been furnished in tabular form but on examination of the table, it is found that, exact number of saplings planted during the years 2009-10 to 2011-12 has not been furnished instead, it is mentioned as **actual**, which is not correct. Therefore, the actual number of saplings planted in each year during 2009-10 to 2011-12 should be furnished. Besides, the achievements, thereof in plantation for each year during the each year of the last approved scheme of mining period may also be submitted in a separate table for more informative. In addition to the above, the actual number of sapling planted during the years 2014-15 & 2015-16 may also be furnished in a separate table indicating the location co-ordinates of such plantation & extent of area covered by such plantation for more informative. [Para 3.3(iv)]

(19) (i) The proposed generation status of soil, overburden & intercalated waste during each year of the last approved scheme of mining has been furnished in 1<sup>st</sup> table but it is found that, exact quantities of soil, overburden & intercalated waste generated in each year during 2009-10 to 2011-12 has not been furnished instead, it is mentioned as **actual**, which is not correct. Therefore, the actual quantities of soil, overburden & intercalated waste generated in each year during 2009-10 to 2011-12 should be furnished. Besides, the achievements, thereof for each year during the each year of the last approved scheme of mining period may also be submitted in tabular form. In addition to above, the actual generation status on the above account for the years 2014-15 & 2015-16 may also be furnished. (ii) Year wise proposal for backfilling proposal during the last approved scheme of mining has been furnished in 2<sup>nd</sup> table but on examination, it is found that, exact extent of area backfilled in each year during 2009-10 to 2011-12 has not been furnished instead, it is mentioned as **actual**, which is not correct. Therefore, the actual extent of area already backfilled in each year during 2009-10 to 2011-12 should be furnished. Besides, the achievements, thereof for each year during the last approved scheme of mining period may also be submitted in a separate table. In addition to the above, the actual status of backfilling during 2014-15 & 2015-16 may also be indicated for more informative. [Para 3.3(v)]

(20) The proposed land reclamation & rehabilitation for each year of the last approved scheme of mining has been furnished in tabular form but on examination of the table, it is found that, exact extent of area reclaimed & rehabilitated during the years 2009-10 to 2011-12 has not been furnished instead, it is mentioned as **actual**, which is not correct. Therefore, the exact extent of area reclaimed & rehabilitated in each year during 2009-10 to 2011-12 should be furnished. Besides, the achievements, thereof on the above account for each year during the last approved scheme of mining period may also be furnished in a separate table. In addition to the above, the actual status of land reclamation & rehabilitation during 2014-15 & 2015-16 may also be indicated. [Para 3.3(vi)]

(21) Review of compliance status of violation pointed out during different occasions has been furnished in tabular form but the actual compliance position of the rules are missing in the table, which should be furnished by adding one more column and the table may be revised accordingly. (Para 3.4)

(22) 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)]

(23) The rainfall data for the months from January to December has been furnished in tabular form but the data pertains to which specific calendar years have not been indicated. (Page No.16)

(24) 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)]

(25) Details of the existing quarries available in the lease area have been furnished in tabular form but the working/non-working status of the same is missing, which should be furnished by adding one more column right to the table for ease in monitoring. (Page No.19 &20)

(26) The cut-off grade of the bauxite is missing in the page under reference and the same should be furnished. (Page No.21)

(27) Existing method of mining has not been mentioned as per the heading of the para, instead, there is a mention that, the mining operations was started in 1974. Therefore, the existing method of mining should be discussed by furnishing the existing dimension of the quarry(s) indicating the working/non-working status. Moreover, the existing status of dump, reclamation & rehabilitation etc. may also be furnished for more informative. [Para 2.0(A)(a)]

(28) The production achieved during the period from 2000-01 to 2011-12 has been furnished in tabular form but the production reported during the period from 2012-13 to 2015-16 is missing, which should be incorporated in the table and the para may be revised accordingly. (Page No.31)

(29) Under the heading **Proposed Method of Mining**, the excavation planning has been proposed in 6 nos. of existing quarries & also certain borehole locations during the ensuing modification period, which is not permitted, instead only one or two quarries should be proposed under excavation planning during each year of the proposed five years period. Accordingly, corresponding modifications/incorporations may also be made in connected paras in the text and also in relevant plates. (Page No.31 & 32)

(30) Under the heading **Mining Method**, there is a mention that, only one bench in bauxite ore zone & one to three benches in soil, morrum and/or laterite have been proposed to be advanced simultaneously but the exact number of benches proposed in soil, morrum and/or laterite has not been clearly indicated. Besides, the height, width & length of none of the bench is given. Therefore, the bench specifications/parameters in respect of all the proposed benches should be furnished. (Page No.33)

(31) In last column of the table given in the para under reference, the length & width of the benches area given but the height of the benches are missing, which should be furnished. [Para 2.0(B)& page No.33]

(32) Under the heading **Insitu Tentative Excavation**, the proposed quantities of Soil/OB/SB/IB/ ROM ore 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, there are more than 3 quarries are proposed during the year 2017-18, which is not permitted. Besides, the recovery of the bauxite is considered as 80% of the ROM & the waste generation is mentioned to be 20% but the basis for such recovery /generation has not been mentioned. Accordingly, corresponding incorporations/modifications may also be made in connected paras in the text & relevant plates. [Para 2.0(C)(I)]

(33) The name of the quarry(s)/location co-ordinates of the proposed workings should be furnished indicating the direction of advancement of quarry faces. Besides, the tentative dimension of the benches proposed to be made in topsoil, laterite/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)]

(34) The para is meant for conceptual mine planning, whereas, no information regarding the same has been furnished. Therefore, the excavation planning beyond the ensuing modification period should be furnished on account of development, production, dumping, reclamation, rehabilitation & afforestation up to the end of the lease period. It is also found that, the occurrence of bauxite is found below the lairs of topsoil, morrum/laterite but the same has not been discussed in the refer para. Therefore, the factual information about the topsoil, morrum/laterite 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)]

(35) In 2<sup>nd</sup> column of the 4<sup>th</sup> row of 2<sup>nd</sup> table, there is a proposal to plant 4600 nos. of saplings during the ensuing modification period but the year wise proposal for the same is missing, which should be furnished indicating the location co-ordinates & extent of area required for the purpose in each year of the proposed four years period for clarity. (Page No. 47)

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

(37) The average rainfall data for the period of 10 years has been furnished in tabular form but the data pertains to which specific calendar years have not been indicated. (Page No.53)

(38) The quantities of topsoil proposed to be generated in each year of the ensuing modification period has been furnished in 1<sup>st</sup> table given in the para under reference 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)

(39) Under the heading **Sub-Grade Mineral**, it is mention that, whatever sub-grade materials produced from the mine shall be blended with the high grade bauxite but the quantity of such sub-grade materials proposed to be generated in each year of the ensuing modification period has not been given, which may be computed & furnished. Accordingly, the information furnished in other places of the document may also be revised. (Page No. 56)

(40) Under the heading **Recreation Facility**, the facilities available to the local people of the surrounding area should be clearly indicated& rest of things should be erased. (Page No. 69)

(41) Dimension (L x B x D) of the void available for backfilling should be furnished, quarry wise in 3<sup>rd</sup> row of the table furnished for the year 2016-17 in the page under reference. Accordingly, the information furnished for the years 2017-18 to 2019-20 in page No. 77 to 79 may also be revised. (Page No. 76 & 77)

(42) Updated status of bank guarantee should be furnished under the heading **Computation of financial assurance** and necessary corrections may also be made accordingly. (Page No. 82)

(43) Plate No. 1 (Key Plan): The details of the deficiencies found on the plate are as follows: The index reference given for 5km radius buffer zone is not matching with that of the plan portion of the plate. Besides, the index reference given for forest land with density also not matching with that of the plan.

(44) Plate No.2 (Area Plan): The area plan submitted along with the document has not been authenticated by the State DMG, therefore, not acceptable in this form. Besides, a plate enclosed as plate No. 15 showing the area of Jobhipat bauxite mine also not authenticated by the competent authority.

(45) Plate No. 3 (Surface Plan): There are four Permanent ground control points (GCP-1 to GCP-4) have been selected, out of which, the GCP-1 is taken from the school building located within the lease hold area and the boundary pillar nos. 35, 36 & 37 are considered as the GCP-4, GCP-3 & GCP-2 respectively, which is not as per the requirement. Therefore, atleast three permanent ground control points situated outside the lease area should 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. Moreover, Surveyors signature is missing on the plate, which should be signed by a competent surveyor.

(46) Plate No. 4 (Geological Plan): (i) The exploration proposed during the year 2015-16 have been depicted on the plan, whereas the modification document has been submitted for the period from 2016-17 to 2019-20, thereby the exploration proposal should be revised suitably. (ii) The ultimate pit limit (UPL) in some locations has been marked covering the jungle jhari land, which is also not proper. Accordingly, corresponding changes may also be made on the plate submitted for geological sections and in connected paras in the text.

(47) Plate No.6 (Development Plan & Section 2016-17): Different litho units depicted on the sections are not matching with that of the plan. Besides, the name of the quarry(s) proposed under excavation planning has not been clearly depicted on the plan & sections as indicated in the text. Accordingly, the plate submitted showing the development plan & sections for the years 2017-18 to 2019-20 and other relevant plates may also be revised.

## GEOLOGY PART

### Text part

1. The DGPS surveyed map/plan in compliance to CCOM circular no 2/2010 and its addendum dated 21.09.2011 & 11.06.2014 regarding geo-reference cadastral map has not been submitted. Undertaking with regards to maintenance of boundary pillars as per GSR no 710(E) dated 8.10.2014 may be enclosed.
2. Latest Authenticated lease map by Competent Authority Showing nature of Government land including Forest Area/Jangaljhari etc. In case of Forest/Jangaljhari NOC from the competent authority may be attached.
3. EC, Forest clearance and NOC from pollution control board are required to be enclosed.
4. photo copy of production from 1993-94 to 2015-16 to be furnished.
5. page-2&4, validity of lease period to be corrected and 5 yr plan period from 2016-17 to 2019-20 may be corrected.
6. Lapse period 2014-15 to 2015-16 may be written on front page and other places.
7. P-16-17, Geology – A no of corrections are there to be checked.
8. It stated that 28 Boreholes were drilled during 2011, Form J and copy of log book to be enclosed.
8. All test and analysis reports are outdated. Latest analysis report of all the quarries analysed from NABL accredited laboratory to be enclosed.
9. Reserve has not been calculated as per guidelines. Reserve may be recasted as on 1.04.2016 considering 25mts either side from borehole as G1 and further 25m as G2. 10m influence from quarry boundary as G1 and further 5m as G2 and quarry bottom depth as G1 and further 5m depth as G2.  
Area explored under different level of exploration may be marked on geological plan with unfc codes.
9. Recovery factor to be furnished based on field test. Cut off grade of ROM with reference threshold to be given.
10. borehole wise and quarry wise reserve in forest and non forest area may be furnished.
11. P-33, In situ tentative excavation table Mineral Reject column is missing it should be added. Quarry wise, section wise production and waste to be crosschecked.
12. Calculation of powder factor for ore and OB to be added.
13. Land use pattern tables existing, after plan period and after life of mine do not match. year wise backfilled area table to be checked.
14. As there is Public health centre and residential school in the lease area vibration study after blasting should have been carried. (P-69)
15. Bank guarantee calculation to be modified as per latest rules.

## PLAN

*1. All plan & section should be prepared as per rule 27(1)(ii) of MCDR 1988 with shown a scale of the plan at least twenty five centimeters long and suitably sub-divided as per rule 27 of MCDR 1988.*

1. *Key Plan*-Longitude and altitude do not match with EC.

2. **Surface plan**- 7.5 m safety zone from forest boundary not marked.

**3. Plate no.-4 & 4. (geological plan & Section)**

G1 & G2 as per UNFC not marked on Geological plan. Plan and section do not match. Proposed Boreholes are to be marked on Geological Plan with GPS co ordinates to be given.

Plan and section do not match. Bench RL missing. At places quarries missing in section.

4. **Development plans.** Plan and section do not match. Bench RL and dump RL are missing. Forestland and green belt, Proposed backfilling on section do not match with plan. Bench RL, Dump RL are missing. year wise working do not match with environment management plan.

5. Authenticated lease map not enclosed.

**All the pages of annexures enclosed with the document should be attested by the person preparing the document.**

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