

SCRUTINY COMMENTS ON EXAMINATION OF MODIFICATION IN APPROVED MINING PLAN FOR BETLA GRAPHITE MINE OF M/S PARIJAT MINING INDUSTRIES (INDIA) PVT. LTD., OVER AN EXTENT OF 7.216 HECTARES, LOCATED IN VILLAGE BETLA, UNDER MANIKA P.S OF LATEHAR DISTRICT OF JHARKHAND STATE, SUBMITTED UNDER RULE 22(6) OF MCR, 1960.

(1) A self-declaration has been enclosed by Shri Harsh Vardhan Bajaj as the director cum nominated owner of M/s Parijat Mining Industries (I) Pvt. Ltd., but a resolution passed by the Board of Directors of the company, nominating Shri Harsh Vardhan Bajaj as the owner of Betla graphite mine of the aforesaid company has not been enclosed, which should be submitted. For information, unless a person has been nominated as the owner of the said mine by the Board of Directors, he cannot sign the document in his individual capacity or by designation. Therefore, the above declaration should be supported by a board resolution, incorporating the name of all the shareholders as directors, as required under the statute.

(2) The DGPS surveyed map/plan submitted showing UTM data instead of GPS data 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.

(3) The photo copy of the memorandum & article of association in favour of M/s Parijat Mining Industries (I) Ltd., has not been enclosed, which should be submitted. Besides, the copy of certificate of incorporation in favour of the aforesaid company may also be submitted.

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

(5) On examination of the copy of the lease deed enclosed as annexure-II to the document, few pages of the same is not clearly legible, thereby a fresh copy of the lease deed should be submitted replacing the enclosed one for clarity.

(6) The achievement in production for the period from 1995-96 to 2013-14 has been enclosed as annexure-V, instead the same should be updated upto the financial year 2014-15 and the annexure may be revised accordingly.

(7) The reserves/resources of graphite have been calculated by surface area method & enclosed as annexure-VI, instead the same should be computed by cross sectional method based on the available exploration data / existing lone quarry.

(8) The chemical analysis report in support of grade of the graphite from Sun-Tech has been enclosed as annexure-VII but the report is old one, analysed on 09.03.2014, instead a fresh report for the same should be submitted. Moreover, the address of the company given in the analysis report is different from the consent letter, certificates, undertakings & declaration enclosed along with the document. Therefore, necessary incorporations / modifications may also be made accordingly.

(9) The excavation planning for the period from 2015-16 to 2019-20 has been computed & enclosed as annexure-IX but the length, width of benches proposed in topsoil, overburden & graphite ore zone has not been furnished. Besides, the location co-ordinates & considered for the purpose is missing, which should also be furnished by adding more columns in the tabular annexure. Moreover, the recovery of graphite ore is considered as 80% but the basis on which such recovery is considered should be justified with valid reasons. So, also the grade of the recoverable graphite may be furnished supported by authenticated chemical analysis report. 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. Accordingly, necessary corrections/modifications may also be made in connected paras in the text & in relevant plates.

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(10) A list of the Board of Directors has been enclosed as annexure-X but a resolution of the board of directors nominating Shri Harsh Vardhan Bajaj has not been enclosed, which should be submitted.

(11) Dimension (L x B x D) of the void available for backfilling has not been furnished in 3rd row of the 1st page of the enclosed annexure-XII and the same should be given, indicating the name of the quarries linked in the void formation. Accordingly, the information furnished for the period from 2016-17 to 2019-20 in the above referred annexure may also be revised.

(12) A flow sheet of the graphite beneficiation unit has been enclosed as annexure-XIII but the name of the mine is missing in the flow sheet, which should be indicated and the annexure may be revised accordingly.

(13) Few photographs of the existing quarries, dump(s) & boundary pillars has been enclosed as annexure-XXII to the document but the location co-ordinates of the existing quarry & dump(s) is missing, which should be mentioned. Moreover, no photograph in support of existing plantation & exploration has been enclosed, which should be submitted for ease in monitoring.

(14) A copy of the explosive procurement license and a copy of the blasters license as required for carrying out blasting operation in the mine have not been enclosed, which should be submitted.

(15) The flue gas, effluent, soil, surface water, noise level monitoring reports in respect of Betla graphite mine has not been enclosed, which should be submitted.

(16) The copy of the Bank Guarantee matching to the excavation planning for the entire five year period of the modification has not been enclosed and the same should be submitted.

(17) In 4th para of the introduction chapter, it is mention that, the modification in the approved mining plan has been prepared for extending the lease period of 50 years, which should be checked and revised suitably.

(18) The phone/fax & E-mail ID if any of the mine address given in the para under reference may be indicated. [Chapter-II (a)]

(19) The valid reasons for submission of modification in the approved mining plan under Rule 22(6) of MCR, 1960 should be furnished instead of mentioning **not applicable**.

(20) The rainfall data for the year 2012 has been furnished in tabular form, which is not latest one; thereby the same should be replaced by a fresh report. (Page No.13)

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

(22) Except the existing status of the lone quarry, no information about the existing status of exploration has been furnished, which should be indicated if any for more informative. [Para 1.0(e)]

(23) Under the heading **Sampling & Analysis**, there is a mention that, the sample from the quarry has been analysed but the manner in which the samples are collected and analysed has not been clearly indicated, which should be discussed and the para may be revised accordingly. (Page No. 16)

(24) No exploration has been undertaken in the lease area so far, whereas only 8 nos. of coring boreholes have been proposed to be drilled during the year 2016-17, instead the entire potential area of mineralisation should be proposed under exploration and the para may be revised accordingly. [Para 1.0(i)]

(25) Huge reserves under G1 & G2 scale have been estimated, without any exploration data, which is not as per the UNFC norms. Therefore, the reserves/resources should be estimated only upto the existing depth of the working quarry and the para may be revised suitably. [Para 1.0(k)]

(26) Under the heading **Existing method of mining**, the commencement of the mining operations are indicated to be in 1996, instead the actual date of commencement should be furnished. [Para 2.0(A)(a)]

(27) Existing dimension of the quarry & dump has been furnished in tabular form but nothing has been given about the reclamation & rehabilitation activities undertaken in the lease area during the previous years of the mining operations, which should be furnished for more informative. (Page No. 23)

(28) The proposed method of mining furnished in the para under reference should be revised by furnishing the proposed bench formation status both in overburden & in ore zone, dumping, reclamation, rehabilitation & afforestation etc. If the proposed workings are in the virgin area, the same should be clearly indicated and the para may be revised accordingly. (Page No.23)

(29) Under the heading **Bench Design and Formation**, the slope angle of the bench is indicated to be 60°, which should be checked & corrected. (Page No.24)

(30) In the 1st table given under the heading **In situ Tentative Excavation**, the percentage of graphite ore production is missing, which should be furnished, indicating the basis of such recovery and the para may be revised accordingly. [Para 2.0(B)(1)]

(31) Tentative dimension of the benches proposed to be made in overburden & graphite ore zone should be specified. Accordingly, necessary incorporations/modifications may also be made in para 2.0(d) & 2.0(e) and other places of the document. [Para 2.0(C)]

(32) The para is meant for conceptual mine planning, whereas, no specific information regarding the same has been furnished. Therefore, the excavation planning beyond the proposed five year period should be furnished on account of development, production, dumping, reclamation, rehabilitation & afforestation up to the end of the conceptual period for ease in monitoring. [Para 2.0(f)]

(33) Under the heading **anticipated life of the mine**, 20% of the mineable reserves are considered as intercalated waste but the basis on which such consideration has been taken into account should be justified with valid reasons. (Page No. 35)

(34) In 2nd column of the 2nd row of the 2nd table, the ultimate pit depth has been indicated to be 24m but the basis on which such depth has been considered should be specified, since no exploration has been undertaken so far in the mine upto that depth. (Page No. 36)

(35) In 2nd column of the 1st table, the extent of area proposed to be utilised for waste dumping has been furnished 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. (Page No. 37)

(36) In 3rd table given in the page under reference, the land use after the five year plan period has been furnished; instead the same by end of each year of the ensuing five year period should be furnished in separate tables. (Page No.37)

(37) Year wise plantation has been proposed in tabular form but the location co-ordinates of such plantation is missing, which should be furnished by adding one more column right to the table for ease in monitoring. (Page No. 39)

(38) The depth of the water table both in summer & rainy seasons should be furnished and the para may be revised accordingly. Besides, the location of the lease area is mentioned to be situated in hilly area, which should be checked and corrected properly. [Para 3.0(a)]

(39) The quality of water encountered in the area is missing, which should be furnished for more informative. Moreover, the topography of the lease area furnished in the para appears to be not correct, which should be revised based on the actual facts & figures. [Para 3.0(c)]

(40) The ground water analysis report has been furnished in tabular form but it is not known when such analysis was done and who has analysed the same, which should be specified and the report should be revised accordingly. (Page No. 41 & 42)

(41) The quantities of OB/SB/IB proposed to be generated in each year of the ensuing five year period has been furnished in 3rd column of the 1st 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. Besides, backfilling has been proposed during the years 2016-17 & 2017-18 but the location co-ordinates for such backfilling has not been given and the same should also be furnished by adding more columns in the table. (Para 4.0)

(43) The graphite contains 16.14% fixed carbon but no chemical analysis report in support of such grade has been enclosed. Besides, the cut-off grade of graphite also not furnished and the same should also be furnished considering the thresh hold value fixed for graphite mineral. (Para 5.0)

(44) Under the heading **Site Services**, the proposed status for the same has been furnished but the existing site services if any may also be given for more informative.(Para 7.0)

(45) Under the heading **Propose Man Power Deployment in future**, a 1st class mine manager as required under MMR, 1961 has not been proposed under employment, which may be incorporated. Besides, a full time mining engineer holding degree in mining Engineering may also be deployed since the mine falls under category A-OTFM. (Page No.48)

(46) The average rainfall data from January to December for the year 2012 has been furnished in tabular form, instead the latest available data should be furnished. (Page No. 54)

(47) Under the heading **Recreation Facility**, the facilities available to the local people of the surrounding area should be furnished in detail & the para may be revised accordingly. (Page No. 58)

(48) Quarry wise extent of area proposed to be degraded in each year of the ensuing five year period 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. (Para 8.3.1)

(49) The name, address & cell number of Shri Krishna Mahto, Supervisor has been given, instead a person atleast in the rank of mine manager, who will be responsible to deal with the matter arises during emergency should be furnished. (Para 1.4 at page No. 69)

(50) Plate No. 1 (Key Plan): The details of the deficiencies found on the plate are as follows: (i) The index reference given for metalled road with triple dotted red lines is not to be seen on the plan portion of the plate. Likewise, the index reference given for un-metalled road/village road also not marked on the plan. (ii) Direction of flow of nala is missing on the plan portion of the plate. (iii) The index reference given for pond is missing on the plan. (iv) The index reference given for forest land with density is not matching with that of the plan. (v) Population of the villages falling within 5km radius of the lease area has also not furnished in the plan portion.

(51) Plate No.3 (Surface Plan): Surveyors signature is missing on the plate, which should be signed by a competent surveyor & the plate may be revised accordingly.

GEOLOGY PART

PART-A-1 GEOLOGY AND EXPLORATION:

1 (i) page no.17: It is mentioned that eight (8) nos. of coring boreholes will be drilled during the plan period 2014-15. However, the modification of approved plan has been prepared for the plan period 2015-16 to 2019-20. Necessary correction may be made.

(ii) The mineral resources have been computed by surface area method & enclosed as annexure-VI to the document; instead the same should be estimated by cross-sectional area method up to the existing depth of quarry present in the lease area for more clarity.

(iii) Surveyor's signature is required on surface plan (plate no.3) and surface geological plan (plate no. 4).

(iv) The manner in which samples have been collected from the quarry/ mines may be discussed in the appropriate para of the text.

All the pages of annexures enclosed with the document should be attested by the RQP.
