

**SCRUTINY COMMENTS ON EXAMINATION OF FINAL MINE CLOSURE PLAN OF PANCHGHARA GRAPHITE MINE OF SHRI SHISHIR KUMAR PODDAR, OVER AN EXTENT OF 3.40 HECTARES, LOCATED IN PANCHGHARA KHURD VILLAGE UNDER BISHRAMPUR P.S OF PALAMAU DISTRICT, JHARKHAND STATE, SUBMITTED UNDER RULE 23C OF MCDR, 1988.**

(1) On examination of the front cover of the FMCP, it is found that, the category of the mine is missing and the same should be furnished. Besides, the registration number allotted under Rule 45 of MCDR, 1988 also not mentioned, which should also be indicated.

(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 contents for the chapters of the FMCP have not been incorporated in the document and the same should be furnished for ease in monitoring.

(4) The photo copy of the land schedule has been enclosed as annexure-4 to the FMCP document but the same has not been authenticated by the competent authority of State Govt., thereby not acceptable in its present form.

(5) The photo ID of the applicant with address proof has not been submitted and the same should be submitted for ease in monitoring.

(6) The chemical analysis report in support of grade of the graphite has been enclosed, which should be submitted.

(7) No photographs of the lease area has been enclosed as annexure to the document, thereby few photographs in support of the lease area including the existing quarries, dump, stack, plantation & boundary pillars should be submitted.

(8) A copy of the Royalty/Dead Rent clearance certificate from the concerned DMO has not been enclosed, which should also be submitted.

(9) It is mention that, there are no possibilities of economic ore, whereas no chemical analysis report of the graphite samples has been submitted. Besides, no exploration has been undertaken in the lease area since the commencement of the mining operations. Therefore, valid reasons for submission of final mine closure plan should be discussed.(Para 10.1.1)

(10) Under the heading **Statutory Obligations**, it is mentioned that, there is no special conditions imposed while execution of the lease deed & approval of mining plan, which is not correct. In fact certain conditions are imposed during the execution of the lease deed & approval of mining plan etc., and also by other regulatory body. Therefore, the compliance status of all the conditions imposed by the regulatory body should be furnished and the para may be revised accordingly.

(Para 10.1.2).Part III, para4(b)(vi) & para7 of lease deed may be referred for compliance status.

(11) The geology, physiography & local geology of the unspecified area has been furnished, which is not proper, instead the name of the lease area indicating the location of the graphite area should be clearly indicated. (Para 1.2.1)

(12) The chemical analysis data of the graphite samples has been given but an authenticated analysis report in support of such data has not been furnished, which should be submitted. Moreover, it is mentioned that, the analysis report is enclosed as annexure-4 but the referred annexure is for land schedule. Therefore, the para may be revised suitably.(Para 3.2.4)

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(13) The reserves/resources available in the lease area as on date have not been assessed, which should be computed and furnished. Besides, the reserves/resources should also be classified under UNFC norms. (Para 1.2.2)

(14)The method of mining should be discussed in detail by furnishing the extent of mechanization, mining machineries deployed and level of production etc. as the same has not been detailed in refer para 1.1. (Repeated Para 1.2.2)

(15)(i) A heading for **proposal as per the approved scheme of mining plan** has been given, which should be checked & corrected as **proposal as per the approved mining plan**. (ii) The trial pits proposed for 1<sup>st</sup> year to 5<sup>th</sup> year of the mining plan period has been given but the financial year against the same is missing, which should be furnished. (iii) There are three trenches are made during the year 2005-06 to 2008-09 as envisaged in the achievement side of the exploration but the dimension of such trenches have not been furnished. Moreover, no such trenches were seen during the field visit of the area and no photographs in support of such trenches also not submitted. (iv) Besides, the achievements on account of exploration for the period from 2009-10 to 2014-15 also not furnished. In the light of the above, the entire para should be revised. [Para 1.3(i)]

(16) The proposed & actual achievement status of developmental activities for each year of the last approved mining plan period has not been clearly indicated, which should be furnished. Besides, the same upto the end of financial year 2014-15 may also be mentioned. [Para 1.3(ii)]

(17) The proposed & actual achieved status of production for each year of the last approved mining plan period has been furnished but the name of the quarry(s)/location co-ordinates of such production is missing, which should be furnished by adding one more column right to the table. Besides, the production achieved beyond the five year period of the last approved mining plan, upto the end of financial year 2014-15 may also be furnished in separate table. [Para 1.3(iii)]

(18)The proposed & actual achievement status of plantation for each year of the last approved mining plan period has been furnished in tabular form but the location co-ordinates of such plantation has not been given, which should be furnished by adding one more column right to the table. Besides, the same upto the end of financial year 2014-15 may also be furnished in separate table. (Page No.13)

(19) The proposed & actual achievement status of waste generation for each year of the last approved mining plan period has not been furnished, which should be furnished. Besides, the same upto the end of financial year 2014-15 may also be given for more informative. (Page No.13 & 14)

(20) The existing status of land degraded in different counts such as quarry, road & trench has been furnished in 1<sup>st</sup> table given in the para under reference but the same on account of dump, reclamation & rehabilitation and afforestation has not been given, which should be furnished for ease in monitoring. (Para 1.4.1)

(21) (i) The details of the existing surface water bodies and ground water table reported in the lease area and the measures intended to be adopted for protection of the same including control of erosion, sedimentation, siltation, water treatment, diversion of water course etc. should be furnished. (ii) Measures for protection of ground water from leaching may also be furnished. (iii) Quality of surface water bodies should be indicated and corrective measures proposed to meet the water quality conforming the permissible limits should also be discussed. (iv) Report of hydrological study carried out if any should be furnished. (Para 1.4.2)

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(22) The existing air quality status of the lease area should be furnished. Besides, the corrective measures proposed to be adopted for prevention of pollution of air should be discussed. (Para 1.4.3)

(23) There is a mention that, **no work has been carried out in the area and hence no waste dump management has been discussed**, whereas an existing quarry was found during the field visit of the area, which indicates that, certain quantities of waste materials must have generated. Therefore, the exact quantities and quality of overburden & waste materials generated from the mine should be furnished including their practice of disposal/utilisation and the manner of stabilization if any. Besides, the protection measures adopted for prevention of siltation, erosion and dust generation from the waste materials may also be discussed. (Para 1.4.4)

(24) The status of availability of topsoil generation from the worked out quarry portion of the lease area should be clearly indicated and the para may be revised accordingly. (Para 1.4.5)

(25) There is a mentioned that, no infrastructure was developed in the lease area but nothing has been mentioned about the infrastructure existing in area applied for surrender, which should be furnished and the para may be revised accordingly. (Para 1.4.7)

(26) Safety & security arrangement made in the mine has not been discussed, which should be furnished and the para may be revised accordingly. (Para 1.4.9)

(27) The disaster management & risk assessment plan of the mine should be discussed in detail. Moreover, the name & contact number of the person responsible during the emergency should be furnished. Besides, nearest fire stations, hospitals and police station is required to be mentioned for more informative. (Para 1.4.10)

(28) The activities normally undertake during the temporary discontinuance period should be mentioned. Besides, the employment status of workers during such discontinuance may also be indicated. (Para 1.4.11)

(29) The number of local residents employed in the mine, status of continuation of family occupation and the scope of joining the occupation back has to be discussed in detail, instead it is mentioned that, no manpower retrenchment, which will not serve the purpose. Accordingly, the paras 1.5.2, 1.5.3, 1.5.4 & 1.5.5 should be revised by furnishing the necessary information. (Para 1.5.1)

(30) Para 1.6 (Time Scheduling for abandonment): The information furnished against each of the activities in tabular form is not correct; thereby the para may be revised by furnishing the available correct information.

(31) Plate No. 01 (Key Plan): The details of the deficiencies found on the plate are as follows: (i) An index reference for metal road with thick red line has been given but the same is missing on the plan portion of the plate. Likewise, the index reference given for footpath is not to be seen on the plan. (ii) The index reference given for nala is also not seen on the plan. (iii) The index reference given for forest is not matching with that of the plan. (iv) The population of the villages falling within 5km radius has not been furnished. (v) Besides, 25cm long scale also not marked on the plate.

(32) Plate No. 02 (Area Plan): The lease area plan submitted along with the document has not been authenticated by the competent authority of State DMG, therefore, not acceptable in this form.

(33) Plate No. 03 (Surface Plan): (i) The date of survey of the area is indicated to be on 20.12.2014, which is not acceptable, instead the area should be re-surveyed and the plate submitted for surface & geological plan should be updated as on 01.04.2015. (ii) Surveyor's signature is missing on

the plate and the plate should be signed by a competent surveyor. (iii) Numbering of the lease boundary pillars have not been done. Moreover, latitude & longitude of the all lease boundary pillars have not been furnished. (iv) At least three permanent ground control points outside the lease area have not been selected and latitude & longitude of these points have also not been furnished. Besides, these ground control points need to be linked with the boundary pillars. The plate may be revised accordingly.

(34) Plate No. 04 (Geological Plan): No exploration has been done in the lease area except the lone existing quarry & three trenches as depicted on this plan but the basis on which such area has been considered as non-mineralized/un-economic should be explained in the text part of the FMCP. Besides, the geological sections for the features shown on the geological plan has not been submitted.

(35) Plate No. 05 (Environment Plan): The index reference given for gridline is not to be seen on the plan portion of the plate. Likewise, the index reference given for 500m barrier line also not marked on the plan.

(36) Plate No. 06 (Environment Management Plan): The protective environmental measures proposed during the final closure have not been depicted with different colour codes, which should be marked and the plate should be revised accordingly.

(37) Separate plate for **Conceptual Sections and reclamation plan** has not been enclosed along with the document, which should also be submitted.

#### **GEOLOGY PART**

1. **Cover page:** The Sub-Rule under which the Final Mine Closure Plan has been submitted should be properly spelt. The lease period and expiry of lease period have not been mentioned on the cover page. The photo-id and permanent address proof of lessee has not been furnished.

2. In the introduction part of the document, Date of opening of mine may also be spelt.

3. **Area Plan:** Plot no. 57 & 59 has not been shown in the area plan submitted. Further, the plot no. 27 as shown in the Area Plan is not within the lease as the plot no. has not been mentioned in the lease deed.

4. **Introduction Chapter:** (a) Para no. should be corrected as per format for all the paras of the document. (b) Name of applicant/Lessee: Mobile no. of the lessee may also be incorporated, (c) Location of lease area in terms of latitude & longitude has not been incorporated, the distance of nearest village from the lease area may also be incorporated, (d) Present land use pattern (Post mining period) has not been incorporated. (e) Under the para "Method of Mining" (last line), the work-load in blasted rock needs to be reconciled as it seems to be on higher side. (f) Under the para "Mineral Processing", the "Flow Sheet" as referred in the last line, has not been incorporated. (g) Para "Washing and Sorting" spelling mistake may be taken care of and the last line needs to be redrafted properly.

5. **Reason for closure:** The basis on which it has been derived that "the area is uneconomic" may be spelt clearly giving proper justification with present chemical analysis report.

6. **Geology: (Physiography):** (i) The continuous small hillocks as mentioned in the first line has not been shown in any of the submitted plans. The species of different plants may be mentioned. The distance of Pachghara village from the lease area and the Nalla on the NW of lease area needs to be incorporated.

**Local Geology:** The "Pegmatite soil" may be explained properly

**Graphite Mineralization:** The para may be recasted.

7. **Para 3.2.4 Physical and Chemical Characteristics:** No analysis report has been annexed at Annexure-4 as mentioned in the last line.

8. **Reserve:** The balance mineral reserve after depleting the production achieved from the mine so far as required, has not been furnished along with its grade.

9. **Review of implementation of Mining Plan/Scheme of Mining including five years Progressive Closure Plan upto final closure of mine:**

i) **Exploration:** The sub heading may be corrected. In the sub-para “**As achieved**”, **page no. 11** it has been mentioned that no graphite mineralization has been found in the three trenches made during 2005-06, 2006-07 & 2008-09 which is contradictory to the information furnished in Para 3.2.4 (Physical & Chemical Characteristics, page no. 9 & 10) where F.C is shown as 10.45%. The same needs to be reconciled properly.

ii) **Para 1.3(iii)Production of Graphite: (Page no. 12):** The Graphite production should be given up-to-date i.e upto 2014-15 and accordingly the balance reserve should be calculated as on 01.04.2015.

**PLATE:**

1. **GEOLOGICAL PLAN(PLATE NO. 04):** Pegmatite has been shown to occur within the water logged quarry, is not proper. The same should be corrected.

2. **GEOLOGICAL SECTION:** No Geological Section and Conceptual Section (Longitudinal & Transverse) have been incorporated.

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

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