

भारत सरकार  
खान मंत्रालय  
भारतीय खान ब्यूरो  
क्षेत्रीय खान नियंत्रक का कार्यालय

No. MPM/OTFM/02-ORI/BHU/2017-18

Plot No. 149, Pokhariput  
Bhubaneswar – 751 020  
Date: 15.05.2017

To

✓ Shri Prabhas Chandra Agrawal, Mine Owner,  
Agrawal Graphite Industries,  
Shantikunj, Farm Road,  
Sambalpur, Odisha – 768002

Sub: Approval of Modification of Mining Plan along with Progressive Mine Closure Plan under Rule 17 of MCR, 2016 of Gandabahali Graphite Mine of Shri Prabhas Chandra Agrawal over an area of 28.615 ha in Nuapada district of Odisha.

Ref: - i) Your letter No. Nil dated 27.04.2017.  
ii) This office letter of even no. dated 01.05.2017.  
iii) This office letter of even no. dated 01.05.2017 addressed to Director of Mines, Government of Odisha copy endorsed to you.

Sir,

This has reference to the letter cited above on the subject. The draft of Modification of Mining Plan along with Progressive Mine Closure Plan (PMCP) has been examined in this office based on earlier site inspection carried out on 04.05.2017 by Shri Dayanand Upadhyay, Assistant Controller of Mines. The deficiencies observed are enclosed herewith as Annexure I.

You are advised to carry out the necessary modifications in the draft Modification of Mining Plan along with Progressive Mine Closure Plan in the light of the contents vide Annexure I and submit **three (3) firm bound and two (2) soft copies of the document text in CD in a single MS Word file (the drawing/plates in Auto CAD compatible format or JPG format in resolution of 100x100 pixels on same CD )** with financial assurance under Rule 27 of MCDR 2017 of the Modification of Mining Plan within **15 (fifteen) days** from the date of issue of this letter, for further necessary action. If the total page of annexures exceeds 50 (Fifty) then it should be submitted as separate volume. But reference of these annexures must appear in the Modification of Mining Plan document. The plates are also to be submitted in separate volume.

The para-wise clarifications and the manner in which the deficiencies are attended should invariably be given while forwarding the modified copies of the Modification of Mining Plan along with Progressive Mine Closure Plan. It may be noted that no extension of time in this regard will be entertained and the Modification of Mining Plan along with Progressive Mine Closure Plan will be considered for rejection if not submitted within above due date . It may also be noted that if the deficiencies are not attended completely, the submission would be liable for rejection without further correspondence.

भवदीय / yours faithfully,

(HARKESH MEENA)

क्षेत्रीय खान नियंत्रक / Regional controller of Mines

**Scrutiny comments on examination of Modification of Review of Mining Plan of Gandabahali Graphite Mine over area 28.615 ha, of Sri Prabhas Chandra Agrawal in district- Nuapada of Odisha State**

**Text:**

**1. GENERAL**

- i) On cover page “Modification of Review of the mining plan under rule 17(3) of Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rule 2016” to be mentioned and same may be refer in different part of the text. Complete address of the lessee with phone no., fax no. & e-mail has not been furnished
- ii) All the annexure to be properly indexed/ numbered/ paged and signed by qualified person.
- iii) “Modification of Mining Plan” may replace with “Modification of Review of the mining plan” in the Certificate produced by qualified person.
- iv) Status of deemed extension of lease under section 8 of MM(D&R) Amendment Act 2015 has not been mentioned.

**2. Details of approved Mining Plan/Scheme of Mining:**

- i) Reason of modification under rule 17(3) of MCR 2016 may be described properly.
- ii) Excavation of waste is much more than proposal. It may be clarified.
- iii) Status of compliance of violation pointed out by IBM, violation letter may be described in chronicle order with compliance report submitted by lessee.

**3. GEOLOGY AND RESERVE:**

- i) The complete lease area should be proposed to cover under exploration to quantify reserves /resources with cut of grade corresponding to threshold value suggested by IBM.
- ii) The spacing of bore holes as proposed to explore the remaining area are not satisfying the G-2 level of exploration which may be modified.
- iii) Details of All exploration boreholes reported carried out must be given in the form of standard borehole logs in annexure with summary.
- iv) Chemical Analysis Report of BHs samples should be enclosed from NABL Accredited laboratory or Govt. lab. as per guideline of “IBM manual on appraisal of Mining Plan-2014”.
- v) Page-16, Total area covered under exploration as depicted in tabular form may furnished proper remarks about unexplored area.
- vi) Page-15, para-4.5.2, Yearwise exploration proposals have not been furnished with grid interval, location, total area covered & level of exploration G1/G2.



- vii) Page 21-24, Reserves & resources estimated is to be re-checked as per Minerals (Evidence of Mineral Contents) Rules, 2015. Blocked mineral resources have not been described properly.
- viii) Reserves and resources estimated in modification of review of mining plan may be depicted with depletion of reserves yearwise with justification if any changes made.

#### **4. MINING:**

- i) The average weighted grade of minerals to be excavated and the grade of mineral rejects may be depicted.
- ii) Under Para 5.1.2 ROM/Waste Ratio not matched with actual ROM/Waste.
- iii) The benches in OB and ore should be marked in different colours in development plan.
- iv) An undertaking to be furnished by lessee that the proposal in non- acquired land will be implemented only as and when surface right will be acquired.
- v) In the development and production tables bench wise, year wise area of excavation and average thickness of the excavation or average area of cross section of bench and its average advance is to be given along with RL of bench at the end of the year.
- vi) Page-34, Proposed method for excavation has not been described properly. The nos. of benches in ore & OB, top & bottom mRL, nos.of quarries proposed may be described.
- vii) Page 32, Interburden has been considered 55% w.r.t ore zone. It may be justified

#### **5. “Stacking of mineral reject/ sub grade material and disposal of waste”**

- i) Storage/Stacking of Sub-grade material/Mineral reject in earmarked area to be described with mRL and area on year to year basis with description of the manner of its disposal.
- ii) Retaining wall all along the dump, mineral reject & top soil may be proposed.
- iii) Specific proposal for stabilization dump slope of existing dump may be furnished.

#### **6. Use of Mineral and Mineral Reject:**

Requirement of end-use industry to be given in terms of physical & chemical composition matching with proposed production of mine.

#### **7. “Other”:**

- i) Existing manpower both direct and contractual has to be mentioned in the text.
- ii) An organizational chart has to be provided for risk assessment study to whom communication to be made in case of any accident.

### **8. “Progressive Mine Closure Plan”:**

- i) Updated air, water, noise, ground vibration and soil data with analysis from laboratory done at specified periodicity for last one year to be enclosed.
- ii) Under impact on land, cumulative land degradation at present, at the end of proposal period and at the end of conceptual period may be given referring to conceptual mining plan given in scheme of mining.
- iii) Year wise proposed location of plantation to be mentioned in tabulated form in text part of the document and same to be depicted in reclamation plan.

### **9. Plates( General):**

- i) The plans and sections submitted do not bear the certificate that --the plans and sections are prepared based on the lease map authenticated by the state government.
- ii) Wind direction may show through wind rose diagram in key plan and environmental plan.
- iii) All plans and sections should be signed with date by certified Surveyor, Qualified Person, Mine Manager and Mining Geologist.
- iv) Magnetic Meridian and date of observation of should be given on all relevant plans.
- v) DGPS plan has not been submitted.

### **10. Key Plan/Lease plan:**

The approach road upto the Mining lease may be shown.

### **11. Surface Plan:**

- i) Benches in ore & OB and Bench mRL have not been shown.
- ii) mRL of dumps and quarries have not been depicted.
- iii) Few pillars may be correlated with some permanent ground features giving distance and direction. Different land use may be shown with colour codes.

### **12. Geological Plan & Section:**

- i) Geological features like strike, dip, dip direction, litho unit etc to be marked. Khandolite as shown in the pit may be corrected.
- ii) The reserve/resources estimated along the sections not matched with text. Some of the sections are not matched with the Geo. Plan. All the sections should be re-checked as per bore hole data and modified accordingly.
- iii) The UNFC has not been depicted in geological plan. The limits of reserve under G2 category has not been marked correctly on geological plan.
- iv) The geological sections have not been prepared correctly in terms of reserves & resources. Section X17-Y17 not correctly shown in plan. The reserves as furnished under 121 has not been justified with Geological



sections. All the sections should be re-checked as per bore hole data and modified accordingly.

- v) mRL of bore holes have not been marked in plan and section. Grid lines have not been shown in sections.

**13. Year wise development plan:**

- i) Excavation in ore and OB is not clear hence on year wise plans and sections ore and OB may be marked.
- ii) Show position of faces and bench RLs at the beginning and end of the year distinctly with direction of advance and individual year workings with colour code. Spot levels at sufficient no of places on original surface, in the pit, and at the toe of benches may be shown so as to ascertain the average depth of excavation in a particular bench.
- vi) Existing position of dump and proposed dump height has not been marked with mRL.
- vii) Grid lines have not been shown in sections.

**14. Environment plan:**

- i) The Environment Plan as prepared should be satisfied the provision as laid down rule 32(5)(b) of MCDR2017.
- ii) Environmental monitoring stations have not been marked. The proposed and existing environment protective measures to be shown in environment plan. The drainage pattern of the lease area also to be shown on the plan.

**15. Financial Assurance Area Plan:**

Area as depicted in text for FA not matched with area given in plan. In the Financial Assurance plan area of each individual land i.e land degradation due to mining activity and processing unit etc at the end of plan period may be shown separately on this plan with highlighted boundaries and different colour codes for FA calculation.

**16. Reclamation Plan:**

Year wise progress of dumping, dump re-handling, backfilling, afforestation using different colour codes for easy understanding may be shown.

**17. Conceptual plan:**

Conceptual plan may be prepared considering mineralization as revealed from the borehole logs. Cross-section and longitudinal section has not been prepared. Direction of run off from the area based on surface contours may be shown on the plan and the sections.