



भारत सरकार

खान मंत्रालय

भारतीय खान ब्यूरो, क्षेत्रीय खान नियंत्रक कार्यालय, रायपुर

दूसरी मंजील, जीएसआई फील्ड प्रशिक्षण केन्द्र, महालेखाकार आफिस कोम्प्लेक्स,  
पोस्ट - विधान सभा, रायपुर (छ.ग)-492005, फोन- 0771—2282530 /2285590 /95ईमेल- [ro.raipur@ibm.gov.in](mailto:ro.raipur@ibm.gov.in) / [ro.raipur.ibm@gmail.com](mailto:ro.raipur.ibm@gmail.com)

संख्या: बालोदाबा/चूप/खयो-1195/2018-रायपुर

दिनांक - 07.03.2019

प्रेषित : श्री कपिल अग्रवाल,  
सी0/66, सेक्टर-4, देवेन्द्र नगर  
रायपुर, छत्तीसगढ़ - 492 004

**विषय:** खनिज (परमाणु और हाइड्रोकार्बन ऊर्जा खनिजों से भिन्न ) रियायत नियम 2016 के नियम 17(3) एवं खनिज संरक्षण एवं विकास नियमावली, 2017 के नियम 23 के अंतर्गत प्रस्तुत निकट ग्राम - मोपर, तहसील - भाटापारा, जिला - बलोदा बाजार (छग) में स्थित मोपर, चूना पत्थर खान, क्षेत्रफल - 13.25 है. की खनन योजना का उपांतरण सह उत्तरोत्तर खान बंद करने की योजना की प्रस्तुति।

महोदय,

आप द्वारा प्रस्तुत उपरोक्त क्षेत्र की खनन योजना का उपांतरण सह उत्तरोत्तर खान बंद करने की योजना की जाँच व खान निरीक्षण के उपरांत इसमें कमियां/त्रुटियों पाई गई हैं। संलग्नक में दर्शाई गयी कमियों/त्रुटियों को सुधारते हुए खनन योजना का उपांतरण सह उत्तरोत्तर खान बंद करने की योजना की (3) तीन स्वच्छ बाउण्ड प्रतियां एवं 2 सॉफ्ट कॉपी (CD) इस पत्र के जारी होने की तिथि से पंद्रह (15) दिनों की अवधि में इस कार्यालय में प्रस्तुत करें तथा यह भी सुनिश्चित करें कि तीन स्वच्छ प्रतियों के प्रत्येक पृष्ठ पर अर्हित व्यक्ति द्वारा हस्ताक्षर कर दिये गये हैं। तथा बिन्दुवार कमियां सुधार का विवरण भी प्रस्तुत करें।

आपको यह भी सलाह दी जाती है कि आप खनन योजना का उपांतरण सह उत्तरोत्तर खान बंद करने की योजना की तीन स्वच्छ बाउण्ड प्रतियां पूर्ण सावधानी से तैयार करें अन्यथा पुनः कमियां/त्रुटियां पाए जाने की स्थिति में यह आपको संशोधनार्थ न लौटाते हुए इस पर अंतिम कार्रवाई कर दी जायेगी।

आप कृपया खनन योजना का उपांतरण सह उत्तरोत्तर खान बंद करने की योजना के साथ प्रस्तुत की जाने वाली वित्तीय आश्वासन एम सी डी आर 2017 के अनुसार पाँच वर्ष की अवधि का (Financial Assurance) क्षेत्रीय खान नियंत्रक, भारतीय खान ब्यूरो, रायपुर के पक्ष में प्रस्तुत करें। वित्तीय आश्वासन के अभाव में खनन योजना का उपांतरण सह उत्तरोत्तर खान बंद करने की योजना अपूर्ण मानते हुए अंतिम कार्रवाई कर दी जाएगी।

यह संवीक्षा पत्र क्षेत्रीय खान नियंत्रक भारतीय खान ब्यूरो, रायपुर के अनुमोदन पश्चात भेजा जा रहा है।

भवदीय,

संलग्न: यथोपरि

( शैवाल कार्तिकेय )  
कनिष्ठ खनन भूविज्ञानी  
कृते क्षेत्रीय खान नियंत्रक  
भारतीय खान ब्यूरो

प्रतिलिपि:

1. खान नियंत्रक (मध्य), भारतीय खान ब्यूरो, नागपुर। (ई मेल द्वारा)
2. श्री शलभ साहा, जियो सोल्यूशनस् प्रा.लि., एच आई जी-21, हुडको कोलोनी, आमदी नगर, भिलाई, जिला-दुर्ग, छत्तीसगढ़- 490009

कनिष्ठ खनन भूविज्ञानी  
कृते क्षेत्रीय खान नियंत्रक  
भारतीय खान ब्यूरो

## Annexure

**Scrutiny comments on examination of Mining Plan including PMCP of Mopar Limestone Mine (area 13.25 Hect.) of Shri Kapil Agrawal in Balodabazar-Bhatapara District of Chhattisgarh State inspected by Shri S. Kartikeya, Jr. Mining Geologist on 04/03/2019**

**General Oversight**

- 1) As per the present lease deed, it has been found that the lease period will expire on 02/10/2022 and no further supplementary agreement for extended period has been made after issuance of the State Government letter dated 08/07/2015 and 21/09/2015 so far. Hence, the entire development and planning of mineral production will be restricted up to the leases period i.e. up to 02/10/2022. Without supplementary lease agreement the entire proposal of development and production of mineral/ore may be modified as per valid lease agreement.
- 2) All the referred rules of MCDR, 1988 may be modified as per MCDR, 2017 e.g. page no. 32 para 7.3.
- 3) Page of the annexure may be mentioned in all the relevant pages.
- 4) Feasibility study has not been prepared and endorsed with this document.

**1.0 Introduction**

- 5) Page no. 4: A term 'Captive' may be replaced with the 'Non-Captive'.

**4.0 Details of Approved Mining Plan/SOM**

- 6) Five Year proposal period for the approved Mining Plan may be mentioned.

**5.0 Review of Earlier Approved Proposal**

- 7) In this chapter, review may be given up to Feb 2019.
- 8) Page no. 11; **(a)** Para 5.5: As per last approved document, 5% quantity of total waste generated from ROM may be mentioned year wise and actual quantity generated may be mentioned as achievement. **(b)** Para 5.8: This para should not be kept blank. Actual achievement of the stripping ratio may be mentioned. **(c)** Bench height and width may be mentioned separately for Topsoil, waste/OB/IB and Mineral/Ore.
- 9) Page no. 12; **(a)** Para 5.10 & 5.11: Proposed location for dumping may be given as per approved document and actual place of dumping location may be mentioned under achievement column. **(b)** Para 5.14: The given information under actual achievement is incorrect, as during last inspection it has been found that no plantation has been done from 2014-15 to 2018-19 up to Oct 2018. Later on few plantations have been done after Oct 2018. Hence actual and correct information based on facts may be given.

**6.0: Geology & Exploration**

- 10) Without feasibility study report 'F Axis' may not be considered as F1. Feasibility Report should cover all the parameters given in MEMC Rule 2015. To support economic axis, none of the parameters has been mentioned whether this project is economically viable or not. Hence, economic axis may not be considered as E1. Parameters given under MEMC Rule, 2015 for Geological axis may be discussed in this chapter.
- 11) Page no. 16; Para 6.2: Actual production up to the month of February 2019 may be taken for depletion from last estimated quantity of reserve and resource.
- 12) Page no. 19; Para 6.5: The Regional Geology of the area may also be described in text e.g. regional structural features, control of mineralization, paragenesis of the mineralization etc.
- 13) Page no. 20; **(a)** Para 6.6: The Local Geology of the area should reflect structural features, control of mineralization, paragenesis of the mineralization etc. **(b)** Para 6.8.2: Number of drilled boreholes by DGM, falling within lease area may be specified with their lithologies.

- 14) Page no. 21; Para 6.8.3: Since none of the samples have been analysed during last scheme period, hence, to support average grade of limestone, few grab samples from the current working face may be analysed from the NABL Accredited test laboratories/ Govt. Laboratory. Location of the drawn samples may be marked in the plan for reference.
- 15) Page no. 23; Para 6.9.3: Detail calculation for mineral reserve and resource has not been done.
- 16) Page no. 24; Para 6.9.6: **(a)** In this paragraph, it should be clearly specified that under which circumstances 3.9 million tonnes of ore/mineral has been blocked. **(b)** Detail calculation for blocked mineral resource has not been furnished.
- 17) Page no.26; Para 6.9.9: The following parameters may be considered for the proposal of future exploration programme as the present drilled boreholes are not indicating the depth wise mineral persistency in the area:
- The entire lease area should be explored under G1 level of exploration during plan period.
  - Exploratory boreholes to be proposed up to 300 meters or up to discontinuance of ore body, whichever is earlier.
  - Only core boreholes may be proposed for drilling.
  - Proposal should be given in accordance the spacing of the borehole specified in the MEMC Rule, 2015.

### 7.0 Mining

- 18) During study of the document it has been found that a small patch/area situated in between pillar no. BP 11 and BP 13 has not been considered for development and mineral exploitation during plan period. Hence, in view of systematic development of the mine, development should cover this area as well and systematic benches should be proposed in this area during this plan period.
- 19) Page no.28; Para 7.2: During inspection it has been found that the overburden is not present within lease area. Most of the mineral is capped with the topsoil, hence, instead of overburden a term topsoil may be used. Further concurrent use of topsoil should be proposed for reclamation purpose in the relevant chapter.
- 20) Page no. 29: In the given table for production of limestone, 5% Generated waste may be written in cubic meters and clearly refer the cross section line/UTM line for better assessment of mineral exploitation/mine development.
- 21) Page no. 30; Table no. (b): This table may be removed, as the calculation has already been done in previous given tables. Repetition of calculation may be avoided in future.
- 22) Page no. 32: **(a)** As per development it has been found that the overall pit slope has not been maintained at 45 degree, hence, the prepared plates may be cross checked and corrected accordingly. **(b)** Blasting parameters should be furnished in thee given format

7.4	BLASTING		
i)	Broad blasting parameters like charge per hole, blasting patten, charge per delay, maximum number of holes blasted in a round, manner and sequence of firing, etc.		
ii)	Annual ROM proposed = tonnes	A	
iii)	Annual waste/OB proposed = tonnes	B	
iv)	Total Material handling Annual (ROM + Waste ) -TMH	C=A+B	
v)	Drilling patten in ore/ over burden (Spacing * Burden* depth )		
vi)	Yield per holes in ore/ OB Zone - tonnes per holes = (S*B*D)*BD	D	
vii)	Nos of drill holes required in a year = TMH/Yield per hole	E=C/D	
viii)	Annual Drill metrage required in mts=( nos of holes X depth of Holes)	F=E* Bench Ht	
ix)	Total Annual Drilling Requirement in mts considering 10 % additional TADR=mts	G=F*1.10	
xi)	Total no of working days in a year=300 days	W	
x)	Nos of working hours in a day based on nos of shift of working	X	
x1)	Actual productive hours in a year considering 80% availability and 50 % utilisation	H=W*X* 0.8*0.5	
xii)	Rate of drilling R= mts/hr,	R	
xiii)	Annual Drilling Output(ADO) of one drill machine in mts=(Productive hours X rate of drilling)	O=H*R	
xiv)	No of drilling machine required to meet proposed material handling =TADR/ADO	N=G/O	

- 23) Page No. 38; Para 7.19: Incorrect information has been given in this paragraph related to future exploration programme.
- 24) Describe briefly the layout of mine workings (Top & Bottom RL and UTM range proposed for development and production) before and after the development.
- 25) Page no. 40; **(a)** Para 7.24: In F.Y. 2023-24, temporary waste dumping has been proposed in the south-western side of the lease area without any appropriate approach road from the quarry to the place of dumping. Further in between quarry and the place of dumping, a canal is present. Hence, how the waste will be transported over the canal to the place of dumping, may be specified. **(b)** Para 7.25: A realistic figure for afforestation may be proposed as nil plantations have been done in first four years of the last approved document. **(c)** Para 7.26: In the south western side of the lease area, where the mineral has been blocked and same has been categorised in feasibility mineral resources (211), this area may be converted into green belt during plan period.

### 9.0 Mine Drainage

- 26) Proposal for regular monitoring of Air, Water and Noise level in the Core Zone and Buffer Zone from the NABL Accredited Test Laboratories may be proposed.

### 10.0 Stacking of Mineral Reject/Sub-grade Material and Disposal of Waste

- 27) Physical and Chemical characteristics of the 5% waste generated from ROM during production may be given.
- 28) Suitable protective measures along waste dump may be proposed.

### 12.0 Progressive Mine Closure Plan

- 29) Area put in use under different heads at the end of every financial year may be given.
- 30) During inspection it has been found that two abundant pits i.e. pit no. 2 and pit no. 3 are present within lease area. In view of the sustainable mining, these two pits are to be converted into rain water harvesting pits, after taking the suitable protective measures all along the pits. Proposal may be incorporated in the text.

Further, suitable protective measures all along the pit no. 4 as well as backfilling in 7.5 m may be proposed during plan period.

### 13.0 Others

- 31) Page no. 52; Para 13.2: Appointment of the fulltime mine manager may be given.

### Plates

- 1) **Plate no. II; Key Plan:** **(a)** Clear and visible copy of the toposheet may be given. **(b)** Range of the latitude and longitude (From to To in WGS 84; degree minute seconds) of the lease area to be shown in the plate.
- 2) **Plate no. IIA; Location Map:** The location map does not indicate the accessibility of the routes to approach the lease area.
- 3) **Plate no. IV; Surface Plan:** **(a)** Co-ordinates of all boundary pillars may be shown in accordance with the authenticated DGPS map. **(b)** During inspection it has been observed that topsoil bund has been made along the lease boundary. The same may be shown in the plan.
- 4) **Plate no. V; Geological Plan:** Mineral blocked in 7.5 m barrier zone may be shown in yellow colour similar to the colour used blocked minerals.
- 5) **Plate no. V-A; Geological Cross sections:** **(a)** The boreholes not falling under cross-sections lines and has been projected in the section may be written projected 'P' as suffix. **(b)** UNFC codes have not been shown in all the sections. **(c)** In the cross section C4-C4' and in Longitudinal section L1-L1', UPL has been marked incorrectly. **(d)** Depth of the proposed borehole may be deleted. **(e)** Almost 5.0 meter black space below the drilled boreholes may be specified in the index.
- 6) **Plate no. VII; Composite Development Plan:** **(a)** Approach road from the pit to the place of dumping may be drawn. **(b)** Development plan and sections may be modified as per comment mentioned in the mining chapter for consideration of the small patch left during the development.

- 7) **Plate no. VI-A; Composite Development Section:** (a) Year wise development sections may be prepared for better assessment of the planning. (b) Subsequent changes in the waste dump may be shown in each section along with top RL of the waste dump. (c) Boreholes should be marked in all the sections.
- 8) **Plate no. VII; Conceptual Plan:** (a) Bench RL may be cross checked and corrected accordingly. (b) Green belt may be shown in plan. (c) Five year development boundary may be removed from the plan. (d) During conceptual stage pit no. 3 and 4 should be backfilled and reclaimed, proposal for the same may be given
- 9) **Plate no. VII A; Conceptual Sections:** (a) Sections does not reflect the pit position of the conceptual stage. Further during conceptual stage, whether mineral will be available for further development may be shown. (b) Pit slope, bench height, and the width may be cross checked with the text. (c) Five year development planning may removed from all the sections.

#### **Annexure**

- 1) Copy of the original lease deed may be enclosed.
- 2) Borehole logs in prescribed form J may be enclosed for reference.

(Shaival Kartikeya)  
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