# कार्यालय प्रधान मुख्य वन संरक्षक (कक्ष भू-प्रबंध), सतपुड़ा भवन, मध्यप्रदेश, भोपाल

क्रमांक / एफ-1 / 823 / 2021 / 10-11 / 2176

भोपाल, दिनांक 26-5-23

प्रति,

वन महानिरीक्षक (एफ.सी.)

भारत सरकार, पर्यावरण वन एवं जलवाय परिवर्तन मंत्रालय इंदिरा पर्यावरण भवन, अलीगंज, जोरबाग रोड़, नई दिल्ली-110003

विषय:- वन मंडल सिंगरौली के परिक्षेत्र बैढ़न के ग्राम मुहैर व पड़री के कक्ष क्र. RF-276, & PF-277, 278, 279 के रकबा 622.783 हे. वनभूमि के स्थान पर पुनरीक्षित रकबा 139.86 हे. वनभूमि में ब्लॉक—बी ओपन कास्ट कोयला उत्खनन हेतु NCL का व्यपवर्तन का आनलाईन प्रस्ताव क्र. FP/MP/MIN/44294/2020

संदर्भ:- भारत सरकार, पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय, नई दिल्ली का पत्र क्र. 8-08/2021-FC, दिनांक 21/03/2023

विषयांकित परियोजना के संबंध में आपके द्वारा संदर्भित पत्र क्र. / 8-08/2021-FC दिनांक 21/03/2023 से 07 बिन्दुओं पर जानकारी चाही गई है। चाहीं गई जानकारी वन संरक्षक, रीवा के पत्र क्रमांक / 3132 दिनांक 25 / 04 / 2023 से प्राप्त हुई है। प्राप्त जानकारी बिन्दुवार निम्नानुसार प्रस्तुत है:-

豖.	चाही गई जानकारी	प्रस्तुत जानकारी
i	The recommendations of DCF, CCF, Nodal Officer and State Govt. in Part-II, Part-III, Part-IV and Part- V respectively w.r.t instant proposal of 139.86 ha shall be submitted.	वन मंडल अधिकारी, सिंगरौली द्वारा भाग—2 में वन संरक्षक, रींवा द्वारा भाग—3 में नोडल अधिकारी द्वारा भाग—4 में तथा मध्य प्रदेश शासन, वन विभाग द्वारा भाग—5 में प्रस्ताव स्वीकृत करने की अनुशंसा की गई है जो संलग्न है।
ii	The user agency shall upload a DGPS map showing the purpose wise utilization of forest land proposed for diversion.	आवेदक संस्था से प्राप्त संशोधित डीजीपीएस मानचित्र संलग्न है यह ऑनलाईन प्रस्ताव के भाग—1 में अपलोड हैं, जिसमें 45.86 हे. (कक्ष क्र. आर.एफ. 276 ) कोयला खनन एवं 94 हेक्टेयर (कक्ष क्र. पी.एफ. 277, 278, व 279) अन्य खनन संबंधित कार्य यथा डिम्पंग हेतु प्रस्तावित है।
iii	The State Govt. shall examine the accuracy of the KML file of forest land proposed for diversion (as per revised proposal) as part of presently proposed forest area is overlapping with the 447 ha approved forest land (Proposal No FP/MP/MIN/907/2005).	भारत सरकार से स्वीकृत रकबा 447 हेक्टेयर की KML file ऑनलाईन प्रस्ताव FP/ MP/ MIN/ 907/2005 में अपलोड है, इसमें कोई ओवर लैपिंग नहीं है। KML file संलग्न है।

आवेदक संस्था द्वारा अवगत कराया गया है कि The State Govt. shall examine the ब्लॉक-बी विस्तार हेतु भूमि का अर्जन सीबीए एक्ट के accuracy of the Mining lease आधार पर क्रमशः अधिसूचना संख्या 1037, 1897, boundary (ML) and proposed Safety 3821 एवं 228 के तहत किया गया है। संशोधित zone KML file as shifting in the माइनिंग प्लान नये सिरे से पुनः सर्वे के आधार पर KML of Mine lease boundary and the safety zone is observed while त्रृटियों को ठीक कर उपयोगिता के आधार पर प्रोजेक्ट comparing the same with reference to बाउण्ड्री को 2257.17 हेक्टेयर से 1756.77 हेक्टेयर the KML file submitted by the user किया गया है। agency in their previous diversion भूमि के विस्तृत विवरण हेतु माइनिंग प्लान एवं proposal i.e. 631.39 ha. स्वीकृति की छायाप्रति संलग्न है। आवेदक संस्था द्वारा अवगत कराया गया है कि The updated details of Mining lease स्वीकृत संशोधित माइनिंग प्लान की कॉपी एवं KML area, Mining plan etc. as per revised/ file शेष फाइल भाग-1 में अपलोड की गई है जिसकी latest diversion proposal shall be uploaded in online Part-I. हार्ड प्रति संलग्न है। क्षतिपूर्ति वनीकरण हेतु पी.एफ.—64 की जांच संबंधित Satellite imagery shows that in two परिक्षेत्र अधिकारी की गई जिसके अनुसार प्रस्तावित (2) CA patches namely PF-82, PF-64 स्थल अतिक्रमण से मुक्त एवं वृक्षारोपण हेतु योग्य है। plantation work was carried out in the पी.एफ.— 752 रकबा 50 हेक्टेयर का प्रस्ताव बीना past. Further, one (1) CA patch PF752 कांकरी अमलगेशन परियोजना हेत् प्रस्तावित किया जा namely encroachment/Agricultural land. The चका है। अतः उसके स्थान पर पूर्व प्रस्ताव के 1300 State Government shall submit CA हेक्अेयर में से 50 हेक्टेयर का अन्य प्रतिपूर्ति वनीकरण area free from all encumbrances. योजना पी.एफ.-752, 753 रकबा 25 हेक्टेयर एवं पी. एफ.—770, 771 रकबा 25 हेक्टेयर ऑनलाईन प्रस्ताव में अपलोड है। चुंकि परियोजना के प्रस्ताव अनुसार कुल 280 हेक्टेयर भूमि की आवश्यकता क्षतिपूर्ति वनीकरण हेतु है। अतः पूर्व में प्रस्तावित 335 हेक्टयर भूमि में से पी.एफ.—82 के रकबा 35 हेक्टेयर को हटाया जा सकता है। आवेदक संस्था से प्राप्त डीजीपीएस मानचित्र व सर्वे The State Govt. needs to update and ऑफ इंडिया की टोपोशीट ऑनलाईन प्रस्ताव के upload the DGPS Map, SoI Map etc. भाग-2 में अपलोड कर दिया गया है। as per revised proposal in online Part-

अतः प्राप्त जानकारी संलग्न प्रेषित कर प्रकरण में स्वीकृति प्रदान करने का अनुरोध है।

संलग्नः- उपरोक्तानुसार।

II.

(सुनील अग्रवाल) प्रधान मुख्य वन संरक्षक (भू–प्रबंध) मध्यप्रदेश, भोपाल भोपाल, दिनांक2 (– 5-23

पृ. क्रमांक / एफ-1 / 823 / 2021 / 10-11 / 9 । निन-प्रतिलिपि:-

1 मुख्य वन संरक्षक, रीवा वृत्त, रींवा, मध्यप्रदेश

2 वन मण्डल अधिकारी, सामान्य वन मण्डल, सिंगरौली मध्य प्रदेश

3 महाप्रबंधक, नॉर्दर्न कोलफील्ड्स लिमिटेड, ब्लॉक—बी परियोजना, पोस्ट गोरबी, जिला—सिंगरौली मध्य प्रदेश।

की ओर सूचनार्थ अग्रेषित ।

प्रधान मुख्य वन संरक्षक (भू-प्रबंध) मध्यप्रदेश, भोपाल

## कार्यालय वन वृत्त रीवा (म०प्र०)

केन्द्रीय विद्यालय मार्ग जवती जुज ब्रिरिया रोवा (प्रायप्रदेश) Email-ccf.rwa@mp.gov.in

केमांक/मा.चि/ 3/32 प्रति.

रीवा दिनांक 25.04-202

प्रधान मुख्य वन संरक्षक (कक्ष भू-प्रबंध) सतपूड़ा भवन भोपाल (म.प्र)

वन मंडल सिंगरौली के परिक्षेत्र बैढ़न के ग्राम मुहैर व पड़री के कक्ष कमांक विषय:--आर. एफ. 276, 281, एवुं पी.एफ. 277 ,278 ,279 के रकबा 622.783 हे. के स्थान पर पुनरीक्षित रकवा 139.86 हे. वनभूमि में ब्लाक वी ओपन कास्ट कोयला उत्खनन हेतु आनलाइन प्रस्ताव कमांक FP/MP/MIN/44294/2020

1. आपका पत्र क्रमांक एफ-1/823/2021/10-11/1225 दिनांक 28.03.2023

2. वनमंडलाधिकारी वनमंडल सिंगरौली का पत्र कमांक / मा.चि. / 1996 दिनांक 14.04.2023

-00-

उपरोक्त संदर्भित पत्र से आपके द्वारा विषयांकित प्रकरण में 07 बिन्दुओं पर जानकारी चाही गयी थी ।

वनमंडलाधिकारी वनमंडल सिंगरौली द्वारा उक्त जानकारी आवेदक संस्थान महाप्रबंधक नार्दन कोल फील्ड्स लिमिटेड ब्लाक बी परियोजना सिंगरौली से संबंधित बिन्दुओं की जानकारी प्राप्त कर संदर्भित पत्र /मा.चि. / 1996 दिनांक 14.04.2023 से अनुशंसा सहित इस कार्यालय को प्रेषित किया गया है।

अतः वनमंडलाधिकारी वनमंडल सिंगरौली से प्राप्त प्रस्ताव में संशोधित भाग-3 की पूर्ति की जाकर अनुशंसा सहित आपकी ओर आवश्यक कार्यवाही हेतु सादर सम्प्रेषित है।

संलग्नः-उपरोक्तानुसार

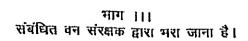
(राजेश क्मार राय) मा.व.सो. 2001<sub>प</sub>्र वन संरक्षक रीवा वृत्त रीवा (म०प्र०) रीवा दिनींक 25-04-2023

पृष्ठांकमांक/मा०चिं0 3/33 प्रतिलिपि:-

> आपके सिंगरौली की ओर 1. वनमंडलाधिकारी वनमंडल क्मांक / मा0चि0 / 1996 दिनांक 14.04.2023 के तारतम्य मे सूचनार्थ प्रेषित ।

> 2. महाप्रबंधक नार्दन कोल फील्ड्स लिमिटेड ब्लाक बी परियोजना सिंगरौली की ओर सूचनार्थ प्रेषित।

संरक्षक रीवा वृत्त रीवा (म०प्र०)



<u>/</u> 1	स्थल जहां की वनभूमि शामिल की गई है क्या इसका संबंधित वन	जी हॉ तत्कालीन मुख्य वन संरक्षक द्वारा दिनांक 24.12.2020 को स्थल निरीक्षण किया गया है।
1 -	गई है क्या इसका संबंधित वन	
.	संरक्षक ने निरीक्षण किया है (हां/	
	नहीं) यदि हां तो निरीक्षण की तारीख	
	और किये गये प्रेक्षणों को, निरीक्षण	
	नोट के रूप में संलंग्न करें	
2	क्या वन संरक्षक उप वन संरक्षक के	राहगत है।
}	अभिमत से सहमत हैं। यदि नहीं तो	
	उसका कारण दें।	The second of th
3	प्रस्ताव की स्वीकृति या अन्यथा के	सिंगरौली जिले के वनमण्डल सिंगरौली के अंतर्गत नार्दन कोल फील्डस लिमिटेड Block-B Expansion
	बारे में विस्तृत कारणों के साथ	Opencast मोडीनेग परियोजना हत प्ररोतावत वर्गनाम क्या क्यांक आर—270, रूपना कार्य
1	अभिमत।	पी— 277, 278, 279 रकवा 94.000 हे0 कुल रकवा 139.860 हे0 है।
		वनमंडल सिंगरौली की नवीन प्रचलित कार्य आयोजना में उक्त कक्ष क्रमांक हाथी कारीडोर में सम्मिलित
		! <del></del>
İ		वनमण्डलाधिकारी वनमण्डल सिंगरीली द्वारा वन (संरक्षण) अधिनियम 1980 (2) के प्रावधानों के तहत वन
		भूमि व्यपवर्तन हेतु कोयला उत्खनन हेतु स्वीकृति दिये जाने की अनुशंसा की गई है।
		वनमंडलाधिकारी सिंगरौली द्वारा की गयी अनुशंसा के आधार पर इस कार्यालय द्वारा 139.860 हे. वन भूमि च्यपवर्तन की अनुमति हेतु अनुशंसित है।
		व्यवसान का अनुसार वह अनुसारण वर

तिथि :*25-***4.**2023 स्थानः रीवा स्थानः

(राजेश कुमार राय) वन संरक्षक सेवा वृत्त रीवा (म.प्र.)

#### प्रपत्र-۷

इसे वन विभाग के प्रभारी सचिव अथवा राज्य सरकार के किसी अन्य प्राधिकृत अधिकारी जो अवर सचिव के पद के नीचे का अधिकारी न हो द्वारा भरा जाना है।

सिफारिश सरकार (उपर्युक्त भाग "ख" या भाग "ग" या भाग ''घ'' में किसी अधिकारी या प्राधिकारी द्वारा की गई प्रतिकूल टिप्पणियों पर विशिष्ट टिप्पणी की जाऐं)

प्रधान मुख्य वन संरक्षक (भू–प्रबंध) की अनुशंसा के आधार पर वन मंडल सिंगरौली के परिक्षेत्र बैढ़न के ग्राम मुहैर व पड़री के रकबा 139.86 हेक्टेयर वनभूमि में ब्लॉक-बी ओपन कास्ट कोयला उत्खनन हेतु नॉर्दन कोलफील्ड्स लिमिटेड को वनभूमि व्यपवर्तन की अनुशंसा की जाती है।

दिनांकः 24.05.2023 भोपाल स्थानः

अपर सचिव

म.प्र. शासन वन विभाग (अशोक कुमार)

प्रस्ताव की राज्य क्रम संख्या (प्राप्ति की तारीख के साथ नोडल अधिकारी द्वारा भरा जावेगा)

न,प्रशासन वन विभाग

## भाग-IV (नोडल अधिकारी या प्रधान मुख्य वन संरक्षक द्वारा भरा जाना है)

17	टिप्पणियों के साथ प्रस्ताव को स्वीकार करने या अन्यथा के लिए राज्य वन विभाग की विस्तृत राय और निर्दिष्ट सिफारिशें (राय देते समय संबंधित वन संरक्षक अथवा उप वन संरक्षक की प्रति कुछ टिप्पणियों की सुस्पष्ट समीक्षा की जॉच और विवेचनात्मक टिप्पणी दी जाय।		वन मंडल सिंगरौली के परिक्षेत्र बैढन के ग्राम मुहैर व पड़री के रकबा 139.86 हेक्टेयर वनभूमि में ब्लॉक—बी ओपन कास्ट कोयला उत्खनन हेतु नॉर्दर्न कोलफील्ड्स लिमिटेड को वनभूमि व्यपवर्तन की अनुशंसा की जाती है।
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तिथिः 02/05/2023 स्थानः भोपाल

(SUNIL AGRAWAL) P.C.C.F. (L.M.) Madhya Pradesh, Bhopal



## कार्यालय वन मण्डल अधिकारी वन मण्डल सिंगरोली(म०प्र०)

### माजन मोड़ जिला प्रचायत के बगल में

सूचना का

ईमेल-dfot.sgl@mp.gov.in, फोन-07805-233336 फ़ैक्स-233355

अधिकार

क्र0/मा०चिं0/ 1996

सिंगरौली, दिनांक 14/04/2023

प्रति,

वन संरक्षक, रीवा वृत्त, रीवा

विषयः≒्

वन मण्डल सिंगरौली के परिक्षेत्र बैढ्न के ग्राम मुहेर व पड़री के कक्ष क्र. आर.एफ. 276, 28.1 एवं पी.एफ. 277, 278, 279 के रकवा 622.782 हेक्टेयर वनभूमि के रथान पर् पुंतरीक्षित रकवा 139.86 है0 वनभूमि में ब्लॉक—बी. ओपन कास्ट कोयला उत्खनन हेतु NCL का व्यपवर्तन का आनुलाईन प्रस्ताव क्रु. FP/MP/MIN/44294/2020;

संदर्भ:-

- ा. प्रधान मुख्य वन संरक्षक (कंक्ष भू प्रबंध) म०प्र० भीपाल का प्रेपत्र के0% एक / // 823 / 2021 / 10—11 / 1225 भीपाल, दिनांक 28.03:2023
- 2. भारत, सरकार पर्यावरण वन एँवं जलवायु मंत्रालय, नई दिल्लीं का पन्न क्रमांक 8–08./2021-एफसी, दिनांक 21.03:2023
- 3. महाप्रबंधक ब्लाक-बी क्षेत्र नार्दन, कोल फील्ड्स लिमिटेड सिंगरौली मध्य प्रदेश का , पत्र क्रमांक / एनसीएल / ब्लॉक-बी / महाप्रबंधक / 2023 / 06 दिनांक 03.04.2023 है

**–**.000€–

विषयांकित संदर्भित पत्र से वन मण्डल सिंगरोंली के पिरक्षेत्र बेंढ़न के ग्राम मुहेर व पड़री के कक्ष क आर.एफ. 276, 281 एवं पी.एफ. 277, 278, 279 के रकवा 622.782 हेक्टेयर वृत्तभूमि के स्थान पर पुनरिक्षित रकवा 139.86 हे0 वनभूमि में ब्लॉक बी ओपन कास्ट क्रोयला उत्खन्न हेतु NCL का व्यपवर्तन आवेदन किया गया है। जिसमें भारत सरकार, पर्यावर्र्ण वृज्य पूर्व जलवाय परिवर्तन मुत्रालय भोगाल ने प्रकरण में सेढांतिक स्वींकृति जारी करने के पूर्व चाही गयी कर विद्वार की जानकारी निम्नानुसार है:

	· · · · · · · · · · · · · · · · · · ·	and the second s			
S.No.	; Query	Reply			
1 ,	The recommendations of DCF, CCF, Nodall Officer and State Govt. in Part-II, Part-III, Part-IV and Part- V respectively w.r.t. instant proposal of 139.86 ha shall be submitted.	,अंनुसंशा पत्र संलंग्न है। दे			
2	The user agency shall upload DGPS map showing the purpose wise utilization of forest land proposed for diversion.	आयेदक संस्थान से: धार्प जानकारी अनुसार संशोधित डीजीपीएस नवसा अवलोंकन हेतु संलग्न है। जिसमें 45.86 हे० (कक्ष कमांक आर. एफ. 276 ) कोयला खनन हेतु प्रस्तावित हैं, एवं 94 हे० (कृष कमांक पी.एफ. 277, 278 एवं 279) अन्य खनन संबंधित कोंग्ने यूथा इंग्पिन हेतु प्रस्तावित हैं। ऑनलाईन प्रस्ताव के शाग-1 में भी अपलोड कर दिया गया है।			
3.	the WMI file of forest land managed fort	प्रत्यावर्तित वन भूमि की के.एम.एल, फ़ाइल 447 है। (vide Proposal no: FP/MP/MIN/907/2005) आवेदक संस्थान से प्राप्त कर			

. 4	The State Court shall overning the	The state of the s
	the Mining longs boundary and a securacy of	आवेदक संस्थान से प्राप्त जानकारी अनुसार, ब्लॉक वी विस्तार हेतु
1		
İ		
41	wine lease boundary and the safety zone is	1697, 3821 ऐवं 228 के तहत किया गया है। संसोधित माइनिंग प्लॉन नए सिरे से पुनः सर्व के आधार पर बुटिया को ठीक कर उपयोगिता
1		
ري الحر	reference to the KML file submitted by the user	िततप्रचात्र बोर्ट नागु स्वीकन्वस्त्रम् के
1	agency in their previous diversion proposal it as	अंतिक वाहिता सामित सामित होता है। असोधित माइनिंग स्तान में लीज गाउँड्से को 2257:17 है। से 1756.27
	631,39 ha.	िहुं किया गया है। इंटिंग किया गया है।
,	Te Te	1900 1901 1101 15 1
]-		(मिमि के विस्तृत विवरण हेतु माइनिंग प्लान एवं स्वीकृति की छायाप्रति
		1,00101,011
5	The updated details of Mining lease area-	The state of the s
	Mining plan etc. as per revised/ latest diversion	भुगापुरक अस्थान से प्राप्त जीतकारी अनुसार स्तीकृत संसोधित माइनिय प्लान की कापी एवं के०एम०एल० शप फाइल भाग-1 के अपलीड कर
1	proposal shall be uploaded in online Part-1.	्वीत्यहर् । प्रत्ये १५ १८ १८ १८ १८ १८ १८ १८ १८ १८ १८ १८ १८ १८
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6	Satellite simporary also a state of the same	
	plantation walk state that in two (2)	बुक्कित्यक वृक्षारोपण पी एक हुन की जांच संबंधित परिक्षेत्र अधिकारी द्वारा की गयी: जिसके अनुसार अस्तावित रथल अतिक्मण से मुदत है एयं विधारोपण योग्य है।
ŀ	Frankation work was carried out in the past	बारा की गयी, जिसके अनुसार प्रतावित स्थल अतिक्रमण से महत है
	Further, one (1) CA patch namely PF 752 ligs	रियं वृक्षारोपण योख है।
	Checoachine in Agricultural land The Cheta	Williams room
	Government shall submit CA area free from all	1: THE CLOSE MICH. AND WELL THE THOUGHT SETTING THE PARTY OF THE CO.
	encumbrances.	के.एम.एवा फाइलान्संलग्न की गर्गा है।
İ	CA patches namely PE-82, PE-64	के.एम.एल: फाइल-संलग्न की गयी हैं। पी.एफ: 752, रकवा 50 हैं। प्रस्ताव बीना ककरी, अमलागेशन
1,	To the second se	परियोजना हेत असलामित विचारित किया परियोजना केकरी, असलागरान
1		
1		प्रस्ताव क्रि. 300 हैं। में से 50 हैं। क्रि. अन्य छतिपूर्ति वनीकरण योजना
1	The state of the s	- भी एफ 752, 753 रकवा 25 हैं0 एवं पी एफ 770, 771 रकवा 25 हैं0
		( NOVO 925 SI, 1968 8 1
1		चूकि परियोजना के प्रस्ताय अनुसार खुल 280 है। वैकृत्पिक वृक्षारोपण
		[1,27] Supply State of the Stat
7	The State Governorde and the State of the St	रकवे 335 हैं। सं हटाया जा सकता है।
	DGPC Mass registro update and upload thes	अविदेश संस्थान से भारत है है ।
[ _e <sub>y</sub> , §	DGPS Map, Sol Map, etc., as per prevised	Extra 1 May 1 White the little of the little
	proposal in online Part-II.	
<u> </u>		

पृ०क्रें०/मा०चि०/ ११११

प्रतिलिपि: 1. प्रधान मुख्य वन संरक्षक (सू-2. महाप्रविधक ब्लाक-बी क्षेत्र उ सूचनार्थ एवं प्रेषित।

# कार्यालय वन परिक्षेत्र अधिकारी वन परिक्षेत्र वितरंगी (म०प्र०

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I.No. 07806 283336.

Ball 23/41/13

प्रशि

श्रीमान वन गण्डल अधिकापी वन गण्डल सिंगपीली (साठ)

विषयः यन मण्डल शिंगरोली के तन परिक्षेत्र नैद्धन के प्राम मुहेर एवं प्रज्ञेरी कहा उत्पाक आर.एफ.276, 281 एवं पी.एफ.277,278,279 के रक्तम 622.782 हेनरेयर नन मूमि के रखान पर पुनशिक्ति रक्तम 139.88 हैं। पनभूभि में त्लाक-भी जीवन कारड कीयना उद्देशनम हेतु घटा, का व्यवसनि का आनलाईन प्रस्ताय 360 हिंग्/भाग/भाग/मा294/2020।

सन्दर्भः-आपका पञ्च प्रमाक/भावचिव/१७२४ सिंगरीनी विभाक २८०३ १०३ ।

उनल विषय में निवेदन है कि वन परिक्षेत्र जिल्लंगी के अन्तरीत करने ब्लाक की कोल ब्लाक परियोजना सें वैकल्पिक वृक्षारीपण हेतु प्रश्तावित स्थल विद्धियों पी.82 रकता 35.00 हैं। मैं तथा कूईनिया पी.64 रक्षया 100 हैं। में बिन्दु क्रमांक 06 से संबंधित चाही गई जानकारी हेतु उकत स्थलों को मौके पर जाकर स्थल का निरीक्षण करने एवं किंग्यानकीन अभिनेत्यों का प्रशिक्षण करने पर प्राप्त जानकारी निम्नानकार है: •

300	परिक्षेत्र	रशल का याम	चक्षा भाग	_	रिमाक्री / वर्शन्ते की वर्तमान स्थिति	वर्रागान् में उपलब्ध रक्तवा
a ben	चितरंगी	पिड़िशॉ	PF-62	35.00	प्रस्तावित रथांस का निरीक्षण करने पर पामा पमा कि उपत्त रथान में पूर्व में वृक्षाराधेण कार्य कराया जा दुका है अतः प्रस्तावित रथांस वृक्षारोपण भोग नहीं है। जिसके फारण वृक्षारोपण हेत् रथांस परिवर्तित कर अन्य रथांस पर वृक्षारोपण किया जांगा आवश्यक है। घरा परिक्षेत्र विवरमी के अन्तर्गत इस परतावित रथांस के वदले नवीन रथांस बारतह केहा भगांक पी.80 रवना 35,000 के की वयन कर वृक्षारोपण होतु प्रस्तावित किया वया है जिसमें पूर्व विगत 40 वर्षों में कोई रोपण नहीं किया महा है और न ही परतावित रथां रिवल पर पृक्षारोपण के योग्य है। जिसकी वेत्रम एका काईल पृथक से भेजी जा रही है।	नवीनः प्रस्तावित रथ्यल बारदह कक्ष क्रमांक थी. एफ.८० रक्तया 35,00 है0
72	चितरंगी	<b>कु</b> ईंनियों	PF-64	100.00	प्रस्तावित रेधल में विगत वस वर्षों में कोई क्षारोपण नहीं किया गया है। प्रस्तावित स्थल में मूर्व में वर्ष 2006 में एफ, डी.ए. (एन. ए.पो.) योजना अन्तर्गत 40000 पीघों का रावण किया गया था जिसमें से बतीमान में गणना कराने पर 4008 पीघे गीजूद है। वर्तमान में भोजूद पीघे थोलूं स्थान को छोड़कर शेष भाग पर वृक्षारोपण किया जाविमा। प्रस्तावित स्थल वृक्षारोपण थोग्य है।	100.00
	योगः—			135.00	A STATE OF THE STA	135.00

अतः चाहा गया प्रतिवेदन श्रीमान जी की ओर अवलोकनाई एवं आयम कार्यवाही हेतु सादर सम्प्रेषित है।

वन परिक्षेत्र अधिकारी वन परिक्षेत्र चित्ररंगी

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#### कार्यालय वन परिक्षेत्र अधिकारी वन परिक्षेत्र जियावन, वनमण्डल सिंगरौली (सामान्य) जिला सिंगरौली (म.प्र.)

E-Mail- rotjiyavan@mp.gov.in

क्रमांक / 396

जियावन, दिनांक/06/04/2023

प्रति.

वनमण्डल अधिकारी वनमण्डल रिगरौली (सामान्य)

विषय :- वन मण्डल सिंगरौली के परिक्षेत्र वैदन के ग्राम मुहैर व पड़री के कक्ष क्रमांक RF 276 & PF 277, 278, 289 के रकवा 622.783 हेक्टेयर वनभूमि के स्थान पर पुनरीक्षित रकवा 139.86 हेक्टेयर वन भूमि में ब्लॉक-वी ओपन कास्ट कोवला उत्खनन हेतु NCL का व्यपवर्तन का ऑनलाईन प्रस्ताव क्रमांक FP/MP/MIN/44294/2020।

संदर्भ :- श्रीमान् प्रधान मुख्य वन संरक्षक (कक्ष भू-प्रबंध) सतपुड़ा भवन, भोपाल का पत्र क्रमांक / एफ-1 / 823 / 2021 / 10-11 / 1225 भोपाल, दिनांक 28.03.2023 ।

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संदर्भित विषय के तारतम्य में निवेदन है कि वन मण्डल सिंगरोली के परिक्षेत्र वैद्धन के ग्राम मुहैर व पड़री के कक्ष क्रमांक RF 276 & PF 277, 278, 289 के रकवा 622.783 हेक्टेयर वनभूमि के स्थान पर पुनरीक्षित रकवा 139.86 हेक्टेयर वन भूमि में ब्लॉक—बी ओपन कास्ट कोयला उत्खनन परियोजना के तहत वन परिक्षेत्र जियावन अन्तर्गत कक्ष क्रमांक पी.एफ. 752 रकवा 50 हेक्टेयर में वृक्षारोपण हेतु प्राक्कलन तैयार कर मय स्थल की .KML फाईल के साथ प्रस्तुत किया गया था। संदर्भित पत्र के माध्यम से कक्ष क्रमांक पी.एफ. 752 में वृक्षारोपण हेतु तैयार की गई .KML फाईल के अवलोकन में अतिक्रमण / कृषि भूमि का उल्लेख किया गया है।

यह कि वृक्षारोपण हेतु प्रस्तावित स्थल कक्ष क्रमांक पी.एफ. 752 में दर्शित अतिक्रमण / कृषि भूमि पूर्णतः वनक्षेत्र है। उक्त स्थल में प्रदर्शित अतिक्रमण को सद्भावनापूर्वक बेदखल किया जाकर वृक्षारोपण क्षेत्र को अतिक्रमण से मुक्त कराया जा चुका है। प्रस्तावित क्षेत्र वर्तमान में किसी भी प्रकार का कोई अतिक्रमण / कृषि भूमि नहीं है। प्रस्तावित क्षेत्र वर्तमान में वृक्षारोपण कार्य कराये जानें हेतु उपयुक्त / योग्य है।

अतः प्राक्कलन स्वीकृति की प्रत्याशा में प्रतिवेदन आपकी ओर अवलोकनार्थ एवं आवश्यक कार्यवाही हेतु सादर प्रस्तुत है।

वर्नपरिक्षत्राधिकारी

जियावन

# Recommendation of DFO

1. वन मण्डल सिंगरीली के अंतर्गत प्रस्तावित वन भूमि 139:86 है। रकवा कहा कमाँक आर एक 276 आरक्षित वन भूमि है एवं 94 है। रकवा कक्ष कर्माक पी.एक 277, 278 एवं 279 संरक्षित वन भूमि है।

2. वन मण्डलं सिंगरौलीं के अंतर्गत प्रस्तावित वन स्मूमि 139.86 हैं। वन संरक्षण अधिनियम 1980 (2) नियम 2003 के तहत एन.सी.एल. ब्लाक-बी विस्तास औपन कास्ट माईनिंग उपयोग के लिए व्यववर्तन का प्रस्तीव है।

3. वन मण्डल सिंगरौली के अंतर्गत प्रस्तावित वन भूमिं कक्ष क्रमांक आर.एफ. 276 एवं प्री.एफ. 277,278 एवं 279 नयीं क्रार्य आयोजना के अनुसार हाथीं कारीड़ोर में सम्मिलित नहीं है। अंतः कीयला उत्वनन् देहतु स्वीकृत दिया जाना अनुसंशित है।

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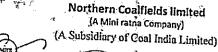
(मधु व्हीं० ऱ्राज) वन मण्डल अधिकारी वन मण्डल सिंगरौली

नार्दर्न कोलफीन्ड्स लिमिटेड (एक मिनी-रव कम्पनी) (योल इंडिया लिमिटेड की अनुपंगी कंपनी











CIN-U10102MP1985GOI003160

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ब्लॉक-बी, परियोजना, पो:गोर्यी जिला:-सिंगरौली (म.प्र.)-486892/ Block-B Project, Post-Gorbl, Distt-Singrauli (M.P.) PIN 486892 Phone: 07805-256092, (FAX) 256092 email: gmnclbb@gmail.com

website: www.nclcil.in

पत्र क्रमांकः एनसीएल/ब्लॉक-बी/महाप्रबंधक/2023/06

दिनांक: 03.04.2023

प्रति

वन मण्डल अधिकारी

वन मण्डल सिंगराली, वैढ़न मध्यप्रदेश

विषय: वन मण्डल सिंगरौली परिक्षेत्र वेढन के ग्राम-मुहेर व पड़री के कक्ष क्रमांक आरएफ़ 276, 281 एवं पीएफ़-277, 278, 279 के रकबा 622,782 हेक्ट वन भूमि के स्थान पर संसोधित 139.86 हेक्ट वन भूमि में ब्लॉक-बी ओपेन कास्ट परियोजना को कोयला उत्खनन हेतु नार्दर्न कोलफील्ड्स लिमिटेड के व्यपवर्तन को ऑनलाइन प्रस्ताव क्रमांक FP/MP/MIN/44294/2020 के संबंध में।

संदर्भ: ऑपके कार्यालय से प्रेषित पत्र क्रमांक माचि/1723 सिंगरीली दिनांक 28.03.2023 महोदय.

बिषयांतर्गेत लेख है की ब्लॉक-बीं परियोजना के 631.39 हेक्ट के स्थान पर नए सिरे से संसोधित की गई वन भूमि 139,86 हेक्ट के प्रत्यावर्तन हेतु आवेदन किया गया था । संसोधित प्रस्ताव की अग्रिम कार्यवाही हेतु वन एवं पर्यावरण मंत्रालय द्वारा पत्र क्रमांक 8-08/2021-FC दिनांक: 21st मार्च, 2023 एवं प्रधान मुख्य वन संरक्षक (क्रक्ष-भूप्रबंध) मध्यप्रदेश भोपाल का पत्र क्रमांक् 1225 दिनॉक 28.03.2023 के तहत निम्न अनुसार बिन्दुवार स्पृष्टीकरण चाहा गया है।

अतः आवेदक संस्थान से संबन्धित बिन्दुवार जानकारी निम्नानुसार संलग्न कर अग्रिम कार्यवाही हेतु सादेर संप्रेषित है।

	<del></del>	
Sl.No.	Shortcomings details vide letter no. 8- 08/2021-FC Dated: 21st March, 2023	Prom def agency.
1	Nodal Officer and State Govt in Part-II, Part-III, Part-IV and Part- V respectively w.r.t instant proposal of 139.86 ha shall be submitted.	आवेदक संस्थान से संबन्धित नहीं है।
	The user agency shall upload a DGPS map showing the purpose wise utilization of forest land proposed for diversion.	(कक्ष क्रमांक RF-276) कीयला खनन हेतु प्रस्तावित है, एवं 94 हेक्ट (कक्ष क्रमांक पीएफ-277,278 एवं 279) अन्य खनन संबन्धित कार्य यथा डिप्पिंग हेतु प्रस्तावित है।
	The State Govt shall examine the accuracy of the KML file of forest land proposed for diversion (as per revised proposal) as part of presently proposed forest area is overlapping with the 447 ha approved forest land (Proposal No FP/MP/MIN/907/2005):	आनेलाइन प्रस्ताव के भाग-1 में भी अपलोड कर दिया गया है। आवेदक संस्थान से संबन्धित नहीं है। KML फ़ाइल 447 हेबट (vide Proposal No FP/MP/MIN/907/2005) संलग्न है।
<del></del>	A.	<b>t</b>



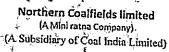
ं नार्दर्न कोलफील्ड्स लिमिटेड (एक मिनी-रव कम्पनी) (कोल इंडिया लिमिट्रेंड की बनुपंगी कंपनी)













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	<del></del>		
	4	4	
	Y *	The State Govt shall examine the	
	j	accuracy of the Mining lease houndary	ा ्या प्राप्त विकास है। साम का अर्थन सावार राज्य है जाएस जाएस ।
ż	\$250 J	(ML) and proposed Safety zone KML file	ਿਆਪਚੂਪੰਜ ਚੁੱਕਮ 1037, 1897, 3821 एवं 228 के लहत ਨਿਆ ਆ ਤੇ ।
	,,,,	as shifting in the KML of Mine lease	संसोधित माइनिंग प्लॉन नए सिरे से पुनः सर्वे के आधार पर बुटियों को ठीक
•		boundary and the safety zone is	कर जागोगिन अपना पर केरिया के अधिर पर श्रीटिया की ठाक
»×.	. 72	observed while comparing the same	कर उपयोगिता आधार पर प्रोजेक्ट बाउंडरी सीएमपीडीआई द्वारा तैयार किया
٠,	- 4	with reference to the KML file submitted	-गया है। तत्पशात वोर्ड द्वारा स्वीकृत हुआ है।
	7	by the user agency in their previous	संसाधत माइनिंग प्लान में लीज बाउंडरी को 2257 17 हेक्ट से 1756 27
. 1	* * *	diversion proposal Le 631,39 ha.	हेक्ट किया गया है।
-	ئ ئام	The undered details of the control o	
- [	er ze	The updated details of Mining lease area,	(भूमि के विस्तृत विवरण हेतु माइनिंग प्लान एवं स्वीकृति की छायाप्रति
1		Mining plan etc. as per revised/ latest	संलम्)
- [	3 4 7	diversion proposal shall be uploaded in	स्वीकृत संबोधित माइतिंग प्लान की काणी एवं KML शेप फाइल भाग । में
	, ;;41),	online Part-I. 8-08/2021-FC	अपलोड कर ही गई है एवं अवलोकत हेतु छायाप्रति सलम है।
ı	- <u>-</u>	1/39924/2023	A STATE OF THE STA
- }	,		
Ī	5 .		
-	يَعْ الْمُوافِق	Satellite imagery shows that in two (2)	
1	2 5	CA natches man all the real (2)	
1	3, 7	CA patches namely PF-82, PF-64	The state of the s
ł	9 kg	plantation work was carried out in the	
ı	1 1	past Furthermone (1) CA patch namely	्रपापदमा संस्थान सं संबोध्यत महाहा
	E .	PP 752 has encroachment/Agricultural	
1		land. The State Government shall submit	
	a4≥ q ,;	CA area free from all encumbrances.	
-	<u>6</u> 6		District the state of the state
İ	** 7. C	L 124 27 人 48 1	
	7.4	The State Govt needs to update and	
1	¥	upload the DGPS Map, Sol Map etc. as	
	کے اند	per revised proposal in online Part-II	आविदक्त संस्थान से सर्वनियत नहीं है। अ
L	***	上 一	
	4r 400	ACTION OF THE PARTY OF THE PART	



## कार्यालय वन मण्डल अधिकारी वन मण्डल सिंगरौली(म०प्र०)

माजन मोड़ जिला पंचायत के बगल में ईमेल-dfot.sgl@mp.gov.in, फोन-07805-233336 फेक्स-233335

क्र0/मा०चि०/ नि?

सिंगरौली, दिनांक 2% -03 -027

प्रति.

महाप्रबंधक ब्लाक-बी क्षेत्र नार्दन कोल फील्ड्स लिमिटेड

विषय:--

वन मण्डल सिंगरौली के परिक्षेत्र बैढ़न के ग्राम मुहेर व पड़री के कक्ष क्र. आर.एफ. 276, 281 एवं पी.एफ. 277, 278, 279 के रकवा 622.782 हेक्टेयर वनभूमि के स्थान पर पुनरीक्षित रकवा 139.86 है0 वनभूमि में ब्लॉक-बी ओपन कास्ट कोयला उत्खनन हेत् NCL का व्यपवर्तन का आनलाईन प्रस्ताव क्र. FP/MP/MIN/44294/2020

संदर्ग:-

1. प्रधान मुख्य वन संरक्षक (कक्ष भू-प्रबंध) म०प्र० भोपाल का पत्र क्र०/एफ-1 /823/2021/10-11/1225 भोपाल, दिनांक़ 28.03.2023

2. भारत सरकार पर्यावरण वन एवं जलवायु मंत्रालय, नई दिल्ली का पत्र कमांक 8-08 / 2021-एफसी, दिनांक 21.03.2023

-000-

विषयांतर्गत संदर्भित पत्र से भारत सरकार पर्यावरण वन एवं जलवायु मंत्रालय, नई दिल्ली से विषयांकित परियोजना के संबंध में 07 बिन्दुओं पर जानकारी चाही गयी है।

अतः सन्दर्भित पत्र संलग्न कर लेखं है कि पत्र में वर्णित 07 बिन्दुओं में से आपसे सम्बन्धित बिन्दुओं की जानकारी टेबुलर फार्म में तैयार कर पूर्ण एकजाई जानकारी दो प्रतियों में तत्काल इस कार्यालय को प्रेषित करने का कष्ट करे।

संलग्न:- सन्दर्भित पत्र।

(मध् व्ही. राज) मण्डल अधिकारी

-मण्डल सिंगरौली

सिंगरौली दिनांक 28-03-

पृ०क्र0 / मा०चि० / 17-24 प्रतिलिपि:--

वन परिक्षेत्र अधिकारी चितरंगी, जियावन को सूचनार्थ कर लेख है कि सन्दर्भित पत्र के बिन्दु कमांक 06 का अवलोकन कर जानकारी तत्काल इस कार्यालय को प्रेषित करे।

> वन मण्डल अधिकारी वन मण्डल सिंगरौली

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क्रमांक / एफ-1/ 823 / 2021 / 10-11 / 1 225

भोपाल, दिनांक 28 03 23

प्रति.

वनमण्डलाधिकारी. सामान्य वनमण्डल, सिंगरीली. मध्यप्रदेश।

विषय:- वन मंडल सिंगरौली के परिक्षेत्र बैढ़न के ग्राम मुहैर व पड़री के कक्षा क्र. RF-276, & PF-277, 278, 279 के रकबा 622.783 हे. वनभूमि के स्थान पर पुनरीक्षित रकबा 139.86 हे. वनभूमि में ब्लॉक-बी ओपन कास्ट कोयला उत्खनन हेतु NCL का व्यपवर्तन का आनंलाईन प्रस्ताव क्र. FP/MP/MIN/44294/2020

संदर्भः- भारत सरकार, पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय, नई दिल्ली का पत्र क्र. 8-08/2021-FC, दिनांक 21 / 03 / 2023

भारत सरकार, पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय, नई दिल्ली द्वारा पत्र क्र. 8-08/2021-FC, दिनांक 21 / 03 / 2023 से विषयांकित परियोजना के सम्बन्ध में 07 बिन्दुओं पर जानकारी चाही गई है।

अतः भारत सरकार के संदर्भ पत्र दिनांक 21.03.2023 की प्रति संलग्न कर लेख है कि भारत सरकार के पत्र में वर्णित 07 बिन्दुओं में से आवेदक संस्था से संबंधित बिन्दुओं की जानकारी आवेदक संस्था से टेवूलर फार्म में आवश्यक अभिलेखों सहित प्राप्त करे तथा वन मंडल कार्यालय से संबंधित बिन्दुओं की जानकारी टेबूलर फार्म नें तैयार कर पूर्ण एकजाई जानकारी दो प्रतियों में मुख्य वन संरक्षक के माध्यम से तत्काल इस कार्यालय को भिजवाये। संलग्नः--उपरोक्तानुसार।

> (सुनील अग्रवाल) प्रधान मुख्य वन संरक्षक (म्-प्रबन्ध) मध्य प्रदेश, भंद्राल

亚/3/303

पृ. क्रनांक / एफ-1 / 823 / 2021 / 10-11 / <del>1</del>226 प्रतिलिपि:--

भोपाल, दिनांक २८ ०३ २३

मुख्य वन संरक्षक, रीवा वृत्त, रीवा, मध्यप्रदेश।

2. महाप्रबंधक, नॉर्दर्न कोलफील्ड्स लिमिटेड, ब्लॉक-बी परियोजना, पोस्ट गोरबी, जिला सिंगरौली मध्य प्रदेश।

की ओर भारत सरकार के संदर्भ पत्र की प्रति आगामी कार्यवाही हेतु संलग्न प्रेषित है। संलग्नः-उपरोक्तानुसार।

28/3/W23.

प्रधान मुख्य वन संरक्षक (भू-प्रबन्ध) मध्य प्रदेश, भोपाल

0/2

1/39924/2023

#### Government of India Ministry of Environment, Forest and Climate Change (Forest Conservation Division)

\*\*\*\*\*\*

Indira Paryavaran Bhawan, Jor Bag Road, Aliganj, New Delhi - 110003 Dated: 21st March, 2023

To.

The Principal Secretary (Forests), Government of Madhya Pradesh, Bhopal.

Subject: Diversion of 139.86 ha forest land in compartment No. RF-276 & PF-277, 278, 279 of Village- Muhair and Padri, Range Baidhan of Singrouli Forest Division for Block-B Expansion Opencast Coal Mining in favour of M/s Northern Coalfield Limited in Singrauli District of Madhya Pradesh State (Online No. FP/MP/MIN/44294/2020) - regarding.

Madam/Sir,

I am directed to refer to the PCCF (Land Management) and Nodal Officer, the Forest (Conservation) Act, 1980, Government of Madhya Pradesh letter No. F-1/823/2021/10-11/806 dated 21.02.2023 on the above mentioned subject seeking prior approval of the Central Government in accordance with Section-2(ii) of the Forest (Conservation) Act, 1980. On examination of proposal the following shortcomings have been observed:

- i. The recommendations of DCF, CCF, Nodal Officer and State Govt. in Part-II, Part-III, Part-IV and Part- V respectively w.r.t instant proposal of 139.86 ha shall be submitted.
- ii. The user agency shall upload a DGPS map showing the purpose wise utilization of forest land proposed for diversion.
- iii. The State Govt. shall examine the accuracy of the KML file of forest land proposed for diversion (as per revised proposal) as part of presently proposed forest area is overlapping with the 447 ha approved forest land (Proposal No FP/MP/MIN/907/2005).
- iv. The State Govt. shall examine the accuracy of the Mining lease boundary (ML) and proposed Safety zone KML file as shifting in the KML of Mine lease boundary and the safety zone is observed while comparing the same with reference to the KML file submitted by the user agency in their previous diversion proposal i.e. 631.39 ha.
- v. The updated details of Mining lease area, Mining plan etc. as per revised/ latest diversion proposal shall be uploaded in online Part-I.

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- vi. Satellite imagery shows that in two (2) CA patches namely PF-82, PF-64 plantation work was carried out in the past. Further, one (1) CA patch namely PF 752 has encroachment/Agricultural land. The State Government shall submit CA area free from all encumbrances.
- vii. The State Govt. needs to update and upload the DGPS Map, SoI Map etc. as per revised proposal in online Part-II.

In view of the above, the state govt. is requested to submit the above information at the earliest for further consideration of the proposal in the Ministry.

Yours sincerely,

Signed by Suneet Bhardwaj Date: 21-03-2023 17:34:27 Sd/-(Suneet Bhardwaj)

**Assistant Inspector General of Forests** 

#### Copy to:

- 1. The PCCF (HoFF), Department of Forest, Government of Madhya Pradesh, Bhopal;
- 2. The Regional Officer, Integrated Regional Office, MoEF&CC, Bhopal;
- 3. The Nodal Officer (FCA), Department of Forest Government of Madhya Pradesh, Bhopal;
- 4. User Agency;
- 5. Monitoring Cell, FC Division, MoEF & CC, New Delhi for uploading on PARIVESH portal.



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# नार्दर्न कोलफील्ड्स लिमिटेड

विभाग

संबंधित अधिकारी

सर्वापन निपिक

नोटिंग शीट

विषयः नार्दर्न कोलफील्ड्स लिमिटेड के निदेशक मण्डल की 283वीं बैठक जो दिनांक 15 मार्च, 2023 को सिंगरीली में सम्पन्न हुई के मिनटस् के अंश।

नार्दर्न कोलफील्ड्स लिमिटेड के निदेशक मण्डलं। की 283वीं बैठक जो दिनांक 15 मार्च, 2023 को सिंगरीली में सम्पन्न हुई के मिनटस् के प्रासंतिक अंश नीचे पुनः पेश है:-

#### Item No.283/C-1

Approval of Mining Plan (including Mine Closure Plan & overburden processing plant for generation of m-sand) for Block-B OCP (10 Mtpa).

- i) The Board noted the information brought out in the Agenda Note.
- ii) Shri Ashutosh Dwivedi, GM(CP), Shri Atal Bihari, RD, CMPDI, RI-VI and Shri Shivraj Singh, CM(CP) apprised the subject proposal before the Board as under: -
- a) Block-B Opencast Project is operating since 23.03.2007 and has produced 66.66 Mt of coal and removed 223.65 Mm3 of overburden till 31.03.2022.
- b) The project has Environmental Clearance for capacity of 5.47 Mtpa in project area of 1339 Ha by MoEF&CC vide letter No. J-11015/80/2013-IA.II (M), dated 06.08.2014.
- c) The expansion project report involved diversion of 631.39 Ha of forest land (71.976 Ha for mining and 559.416 Ha for OB dumping). However, the proposal of diversion of 631.39 Ha of forest land was rejected by FAC of MoEF&CC. Therefore, a revised Mining Plan (First Modification) of Block-B OCP (10 Mtpa) has been prepared by CMPDIL with minimum required forest land for OB dumping by increasing the proposed dump height from 90m to 120m and flushing the internal and external OB dumps in Vindhya I & II quarry. Total additional forest land requirement in this Mining Plan is now 139.86 ha.
- d) Further, as per directives of Ministry of Mines (Sand Mining Framework, 2016) and Ministry of Coal, new initiative for conservation of minerals and to reduce environmental impacts on river ecosystem, production of manufactured sand from the overburden materials at Block-B Opencast Coal mine has been proposed with capacity of 2000 m3/day within present project area of Block-B OCP. Utilization of overburden is also a condition in TOR granted for EC of 10 Mtpa for the Block-B expansion OCP.

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e) The balance coal reserves as on 01.04.2022 is 116.19 MT. Balance life of mine has been estimated to be 13 years at the peak production capacity of 10 Mtpa.

f) The calendar plan of mining operation has been formulated based on the balance mineable coal reserves, adopted sequence of opencast minefield development and optimum conditions of mining operations for the balance life of mine.

Land requirement for the mine is as follows:

	1 : 1				FIG	j in Ha
				Existing		
SI. No.	Land Type	Total Land Requirement	1/4/2014	Additional acquired in 2018	Total	Balance
1	Tenancy 1	526.50	463.00	0.00	463.00	63.50
	Government	643.41	429.00	191.96	620.96	22.45
	· · · · · · · · · · · · · · · · · · ·	586.86	447.00	0.00	447.00	139.86
3_	Forèst :	1756.77	1339.00	191.96	1530.96	225.81

h) Coal evacuation is proposed by rail from existing Railway siding within the mine area through existing Silo. Coal Handling Plant of 3.5 Mtpa rated capacity exists with Silo loading on to private rail siding connecting to Katni-Chopan Rail line. A wharfwall also exists on this private rail siding. For handling of coal at expansion stage, incremental CHP of 4.5 Mtpa is under construction:

Ministry of Coal, the Mine Closure Plan has been incorporated in the Mining Plan for Block-B OCP (10 Mtpa). The abandonment cost has been revised according to the WPI of Nov 2022 as per the mine life proposed in the modified Mining Plan. Amount already deposited in the Escrow account up to Mar 2022 has been taken into consideration. The total balance Mine Closure cost to be deposited in ESCROW account has been estimated as Rs 188.62 Crores.

iii) Board of Directors, after detailed deliberation, accorded unanimous approval to the Mining Plan (including Mine Closure Plan) for Block-B Expansion OCP (10 Mtpa), as brought out in the agenda note.

प्राप्ति एंग्यास्तारांश No. वे 2239

. :: 31/3/23

कपनी सचिव एनसीएल/बोर्ड/7सी/283/**890** दिनांक 30 /03/2023

<u> भहा प्रबंधक(सी०पी०),एनसीएल</u>

प्रतिलिपि:

निदेशक(र्तकायो ०परि०), एनसीएल।

Revised Mine Plan including Mine Closure Plan (as per latest guidelines of Ministry of Coal)

# MINING PLAN (including Mine Closure Plan) (First Modification) FOR BLOCK-B OCP

(Coal Production Capacity of 10.00 Mtpa with 2000m³/Day Overburden Processing Plant to generate Manufactured Sand in Project Area of 1756.77Ha.)

(Project Area - 1756.77 Ha)

Singrauli Coalfield, Singrauli District, Madhya Pradesh State

(In line with the Guidelines of MoC vide dated 29-05-2020 & 09-09-2020)

FEBRUARY - 2023



Northern Coalfields Limited
PO- Singrauli, Dist- Singrauli, State -MP - 486889
Prepared by: CMPDI, RI-VI, PO- Jayant Colliery,
Dist - Singrauli (MP) 486890

તાદર્વ યોખકોગામ (एक विनी-रक कम्पी) (कोच इक्रिया विनिदेश की अनुवर्गी कानी)



(A Marchattle Company) (A Subsidiary of Coal India Limited)











CIN-U10102MP1985G0(003160

An 150: 9001, 150, 14001 & OHSAS: 18001 Certified Company

क्योर-वी, प्रीयोजना, पो:पोरवी जिला-सिवरीची (म.श.)-488892/ Block-B Project, Post-Gorbi, Distt-Singravii (M.P.) P94 486892 Phone: 07805-256092, (FAX) 256092 email: gmrclbb@gmail.com website: www.nckil.in

Ref. No.NCL/Block-B/GM/2021/나 승고

Date: 24.01.2023

The District Magistrate Singrauli, Madhya Pradesh

Subject: Permission for selling of M-sand obtained through Processing of Overburden materials generated from Block-B Project.

Sir.

Keeping in view of huge requirement of sand in the Singrauli and nearby district. Northern Coalfields Limited (NCL), a subsidiary of Coal India Limited is taking a new Sustainable Institute towards producing M-sand by processing the overburden materials removed during the extraction of coal. This initiative has been taken under the directives of the Ministry of Mines (Copy enclosed as Annexure-1) and Ministry of Coal. Under the Sustainable Development Cell (SDC), Ministry of Coal has a continuous thrust on ensuring alternative usage of overburden materials by all the coal companies. As per the recent DO letter vide ref no. SDC/50/2020-SDC did, 28th May 2021 received from Secretary (Coal), NCL has been asked to expedite its efforts regarding utilization of Overburden materials (Copy enclosed as Annexure-2).

The Overburden materials generated from the mines consists mainly of Sandstones and Shales. Among these two, sandstones predominate. Sandstone is the tock formed by cementing of sands composed of largely of quartz and silicate minerals. HT Kharagpur undertook study on characterization of OB material and its alternate application; the study found that on an average 89.70% SiO2 and a minimum of 83% sand equivalent was present in the sandstone sample of Block-B (Study enclosed as Annexure 3). Further for validation of the same, Block-B Project's OB sample were tested by construction agencies such as M/s CDE Asia Limited and M/s Starke Minerals has as per IS 383(2016) and found that appx yield of 65-80% of sand (Annexure 4).

Scope at NCL.

NCL produced 122.43 MT of coal and removed 363,76 Mcum of Overburden with a stripping ratio of approx 3 in the FY 2021-22. Further with the increase in coal production at NCL, the overburden removal will also increase, hence this alternative utilization of Overburden into sand will not only pave the way restoring natural resources but it will also help in generation of additional space for dump accommodation in internal dumps and may address the issue of shortage of space for dumping

Utilization of M-sand:

Construction activities: M-Sand will adhere to IS-383 specifications and can be used in Manufacturing of Cement Concrete, Cement Mortar for brickwork and plaster.

कलेक्ट्रेट जिला-सिंगरीली (न प्र.)

.....

मार्थे को मनी महार [एक विनेत्सक कामनी] (बोन प्रतिश निविदेश की अनुगरी काली)



[A line sales from points] dradeers of Cent Inka Lametods











CIN-U10102MP1985GO(003160

An 150: 9001, 150: 14001 & OHSAS: 18001 Certified Company

क्लांक-बी, परियोजना, पो:बोरबी जिला-लिक्सीनी (य.प.)-486892/ Block-B Project, Post-Gorbi, Distr-Singraull (M.P.) 914 486892 Phone: 07205-256092 (FAX) 256092 email: genetible@gmeil.com website: www.eckille

In view of the above, you are hereby requested for giving permission for selling of M-Sand obtained through processing of Overburden materials generated from Block-B Project.

Encl: - 1. As above

2. Revenue plan showing location of the site earmarked for OB to sand plant installation.

Yours faithfully.

General Manager Block-B Area

Copy for kind information to:

1. Director (Tech/Opm.), NCL HQ

2. Director (Tech/P&P), NCL HQ

General Manager (Min)/TS to CMD, NCL HQ
 General Manager (R&D/NI), NCL HQ

Job No. 212206104

Mass balance of Coal production, OB excavation & generation of Manufactured Sand (Peak excavation per year) year wise during the balance period of mine.

Block-B Opencast Project is operating since 23.03.2007. PR prepared for a production capacity of 3.50 Mtpa has been approved by the Govt. of India vide letter No.43011-16-2003-CPMA, dated 7th July, 2006. Latest EC has been obtained vide letter No.No. J-11015/80/2013-IA.II (M), dated 06.08.2014 with a production capacity of 5.47 Mtpa in an area of 1339.00 ha.

Expansion Project Report (EPR) has been prepared for normative capacity of 8.00 Mtpa and peak capacity of 10.0 Mtpa in order to meet the demand of power grade coal by NCL.

The EPR has been approved by CIL Board in 387<sup>th</sup> meeting on 22.07.2019 for an additional capital investment of 998.71 crores with Option-II i.e. total Coal departmental and total OB Outsourcing.

Balance life of the mine as on 01.04.2022: 13 years i.e. upto FY 2034-35.

The Mass Balance study of Coal Production, OB Excavation & generation of Manufactured Sand (Peak excavation per year) year wise during the balance period of mine for Block-B OCP is given below:

Consideration as per the EC / Mining Plan for mass balance/ material balance study:

- Coal mined out in a year (Peak during life of the mining activities) = 10 Million
   Tonne / 6.45 Million cubic meters.
- OB removed in a year (Peak during life of the mining activities) = 86.03 Million
   Tonne/ 49.38 Million cubic meters.
- Total Mass (Peak material handling during the life of mine) = 87.11 Million Tonne
   / 50 Million cubic meters (Approx.) in a year.

Based on Proposed EC scenario and proposed amendment in EC for generation of manufactured sand from overburden processing plant scenario, the mass balance study has been carried out (considering the balance life of 13 years from FY- 2022-2023).

Year wise mass/ material balance: For Production

	Peak Coal p		Waste/ B	y Product	Total (Mm³)	
Year	(MT)	(Mm³) (P=1.55 Kg/m³)	OB Removal (Mm³) as per proposed Mining Plan	Generation of Manufactured Sand (Mm³) from OB as per proposed amendment	As per proposed amendment	Peak (Coal + OB Volume in Mm³)
2022-23	5.47	3.53	32.09	-	32.09	35,62
2023-24	8.00	5,16	40	-	40.00	45.16
2024-25	10.00	6.45	49.84	0.16	<b>-</b> 50.00	56.45
2025-26	10.00	6.45	49.69	0.31	50.00	56.45
2026-27	10.00	6.45	49.38	0.62	50.00	56.45
2027-28	10.00	6.45	49.38	0,62	50.00	56.45
2028-29	10.00	6.45	49,38	0.62	50,00	56.45
2029-30	10.00	6.45	49.38	0.62	50.00	56,45
2030-31	10.00	6.45	49.38	0.62	50.00	56,45
2031-32	10.00	6.45	44.44	0.62	45.06	51.51
2032-33	9.00	5.81	35.38	0.62	36.00	41.81
2033-34	8.00	5.16	27.38	0.62	28.00	33.16
2034-35	5.72	3.69	14.2	0.62	14.82	18.51
Total	116.19	74.96	539.92	6.05	545.97	620.93

From the above, it is clear that the total mass balance will remain the same with the proposed amendment so far as total material handling is concerned i.e. Coal + OB + Generation of Manufactured sand from overburden.

In other words, the total mass being handled within Proposed EC (10 Mtpa Coal production with corresponding removal of overburden) will remain the same with proposed addition of generation of manufactured sand from the excavated overburden @ 2000 cubic metre per day concurrently with the coal production at the rate of already Proposed EC capacity.

Revised Mine Plan including Mine Closure Plan (as per latest guidelines of Ministry of Coal)

# MINING PLAN (including Mine Closure Plan) (First Modification) FOR BLOCK-B OCP

(Coal Production Capacity of 10.00 Mtpa with 2000m³/Day Overburden Processing Plant to generate Manufactured Sand in Project Area of 1756.77Ha.)

(Project Area - 1756.77 Ha)

Singrauli Coalfield, Singrauli District, Madhya Pradesh State

(In line with the Guidelines of MoC vide dated 29-05-2020 & 09-09-2020)

February - 2023



Prepared by: CMPDI, RI-VI, PO- Jayant Colliery, Dist - Singrauli (MP) 486890

# INDEX OF CHAPTERS OF THE MINING PLAN (INCLUDING MINE CLOSURE PLAN)

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#### CHECK LIST

	Details	(√/x)
	Expert-review Report	
Chapter -1	Project Information	✓
Chapter -2	Exploration, Geology, Seam Sequence, Coal Quality and Reserve	<b>✓</b>
Chapter -3	Mining	4:
Chapter -4	Safety Management	<b>/</b>
Chapter -5	Infrastructure Facilities proposed and their Location	<b>✓</b>
Chapter -6	Land Requirement	✓
Chapter -7	Environment Management	<b>✓</b>
Chapter-8	Progressive & Final Mine Closure Plan	<b>✓</b>
	Annexures and Plates	<b>✓</b>

Justification for Revision of Mining Plan (including Mine Closure Plan) for inclusion of Overburden Processing Plant to generate Manufactured Sand

The Project Report for Block-B OCP (3.50 Mtpa) was prepared and approved by the Govt. of India vide letter No.43011-16-2003-CPMA, dated 7th July, 2006. PR of Block-B (3.5 Mtpa) has been completed on 18.12.2015 for a capital of Rs.550.32 crores.

The project has Environmental Clearance for capacity of 5.47 Mtpa in project area of 1339 Ha by MoEF&CC vide letter No. J-11015/80/2013-IA.II (M), dated 06.08.2014.

Subsequently, Expansion Project Report (EPR) has been prepared for normative capacity of 8.00 Mtpa and peak capacity of 10.0 Mtpa in order to meet the demand of power grade coal by NCL.

The expansion project involved diversion of 631.39 Ha of forest land (71.976 Ha for mining and 559.416 Ha for OB dumping). However, the proposal of diversion of 631.39 Ha of forest land required for the expansion of the project from 5.47 Mtpa to 10.00 Mtpa was rejected by FAC of MoEF&CC vide letter no. File No.8-08/2021-FC dated 29.06.2022 citing, "The proposal was examined in detail and it has been observed that the proposal in its present form is not site specific as more than 78% of the forest area is proposed for dumping the overburden, which can be done over non-forest land. Keeping this in view the above proposal for diversion of forest land stands rejected."

Therefore, a revised Mining Plan of Block-B OCP (10 Mtpa) is prepared considering the restriction on use of forest land for OB dumping by increasing the dump height from 90m to 120m and flushing the internal and external OB dumps in Vindhya I & II quarry so that bare minimum forest land i.e., 139.86 ha (45.86 Ha for excavation and 94 Ha for OB dumping) is required for the expansion project.

Subsequently, as per directives of Ministry of Mines (Sand Mining Framework, 2016) and Ministry of Coal, new initiative for conservation of minerals and to reduce environmental impacts on river ecosystem, production of manufactured sand from the overburden materials at Block-B Opencast Coal mine has been proposed. This sand generated from overburden processing will be an initiative for converting waste to useful resources. For this an overburden processing plant for generation of manufactured sand with capacity of 2000 m³/day is proposed to be installed within present project area of Block-B OCP.

For installation & commissioning of plant for sand segregation from overburden material excavated from revenue land at Block-B OCP along with regular coal mining operations with 10 Mtpa production in same project area of 1756.77Ha; amendment in proposed EC has to be obtained from MoEF&CC.

Accordingly revised Mining Plan (including Mine Closure Plan) has been prepared for inclusion of overburden processing plant for generation of manufactured sand along with coal mining operations.

# BRIEF ON OVERBURDEN PROCESSING FOR GENERATION OF MANUFACTURED SAND:

Sand is formed by natural erosion processes over thousands of years. Sand and gravel are mined out worldwide and account for the largest volume of solid materials extracted globally.

These are being extracted at a greater rate than their natural formation rate. Use of sand and gravel in colossal quantities in construction activities, increases dependence on these materials. Ensuring their availability is vital for infrastructure development. Excessive removal of sand from river bed has adverse impacts on river, delta, coastal and marine ecosystem and may significantly distort the natural equilibrium of a stream. Major impacts are evident like loss of land through river/ coastal erosion, lowering of water table and decrease in the amount of sediment supply. Sand mining from rivers can also damage private and public properties as well as aquatic habitats. Thus extraction has to be regulated and required environmental safeguards during sand mining are to be ensured.

Use of manufactured sand, artificial sand and alternative technologies in construction materials and processes have to be encouraged for reducing the dependence on naturally occurring sand and gravel.

The excavated overburden material from revenue land at Block-B OC is dumped at earmarked sites in external and internal dump. The overburden materials generated from coal mine of this region consists mainly of alluvial soil, hard rocks viz. Sandstone, shale & their intercalations. Sandstone is the main constituent of overburden material.

Sandstone is the rock formed by cementing of sands composed largely of quartz and silicate minerals. Preliminary investigation report suggests 70-80% sand (as per IS-383 (2016)) concentration in overburden material of Block- B OCP.

This sand if extracted from overburden materials can be alternative to river sand and be utilized as construction material grade sand and in other geotechnical applications. Use of this manufactured sand will help in reducing environmental impacts on the river ecosystem. This Manufactured sand can be made available in all seasons and cost will also be cheaper than river sand. Sand segregation from overburden material in open cast coal mines of NCL will be an important step in this direction. Segregation of sand from overburden material can be achieved along with regular coal mining operations in accordance to permission to be obtained from Regulatory Authorities.

Accordingly, it is proposed for generation of manufactured sand by processing of overburden material excavated from revenue land, which is abundantly available at Block-B OCP.

In view of above, a revised Mining Plan (including Mine Closure Plan) to include overburden processing plant to generate manufactured sand along with coal mining operations has been prepared. It will help in conservation of minerals and reduce environmental impact on river ecosystem by minimizing the foot prints and dependency on river sand.

Mitigative measures for pollution control will be taken for both the coal mining operations and Sand segregation plant.

SI.	Source of Air	Control Measures
No.	Pollution	
1	Crushing	Fully covered crusher, chances for leakage will be almost negligible.
2	Vibrating Screen	Will be Covered externally to reduce the air borne dust.
3	Loading	Segregated sand after washing in the hydrocyclone will become wet.
4	Transportation	Wet segregated sand will be transported via tarpaulin covered trucks

SI. No.	Source of Water Pollution	Control Measures
1	Hydrocyclone (washing of sand)	Treated water from ETP situated at Block-B Project will be used in the hydrocyclone to separate clay and silt from the OB. The water with clay and silt will be transferred into the thickener which will separate 90% of the total input water for reuse, whereas the balance 10% water with clay will be discharged through pipeline in clay pond for settling. The Clay pond is left for drying. The water left out after evaporation in clay pond will be reused for various purposes in plant. Thus Zero water discharge will be there.

Exercise on mass balance considering the Sand Segregation alongwith normal mining activity as per proposed EC has been carried out and enclosed as Annexure-II of this Mining Plan. As per the exercise the total production/Material handling (Coal+OB+Sand in Million Cubic Meter) has been contained within the existing EC capacity of 5.47 Mtpa and proposed EC capacity of 10 Mtpa.

#### MERITS OF THE PROPOSAL:

The sand segregation plant is proposed to be commissioned within same project area of 1756.77Ha as per Proposed EC along with regular coal mining operations with production capacity of 10 Mtpa. It will have following benefits:

- (i) Degradation of land can be minimized.
- (ii) Generation of indirect employment from operation of overburden processing plant.
- (iii) Reduce the dependency and demand on naturally occurring sand for construction works to a great extent. It will help in conservation of river ecosystem.
- (iv) Availability of sand in all seasons. Uninterrupted supply of sand without any seasonal affect throughout the year.
- (v) Cost of sand will be substantially cheaper than river sand.
- (vi) Conversion of waste (OB material) to useful resource.
- (vii) Revenue generation through selling of sand segregated from overburden (Waste) materials as Business Diversification plan for the company.

#### Conclusion:

Revised Mining Plan (including Mine Closure Plan) has been prepared as per the latest guidelines of Ministry of Coal dated 29.05.2020 & 09.09.2020 for approval of NCL Board. It has been revised for inclusion of Sand Segregation Plant with capacity of 2000 m³/ day along with regular coal mining operations with proposed production capacity of 10 Mtpa within project area of 1756.77Ha as proposed EC. After approval of NCL Board, application for obtaining amendment in EC to MoEF&CC will be done.

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# CHAPTER 1 PROJECT INFORMATION

Note: Prepared based on the Recast EPR of Block-B OCP (8 Mtpa) with Normative production capacity of 8 Mtpa, Peak capacity 10 Mtpa approved by CIL Board in 387<sup>th</sup> meeting on 22.07.2019 for an additional capital investment of ₹ 998.71 crores with Option-II i.e. total Coal departmental and total OB outsourcing.

	Parameters	Details
1.1	INTRODUCTION	
1.1.1	Name of Coal / Lignite Block	Block-B Geological Block and part of Block-B Extension Block
1.1.2	Name of the Coalfield/ Lignite Field	Singrauli Coalfields, Moher Sub-Basin
1.1.3	Base date of Mining Plan/ Mine Closure Plan	 01.04.2022
1.1.4	Linked End Use Plant	The Recast EPR of Block-B OCP will have linkage with Kota & Suratgarh TPS of RRVUNL and Obra TPS of UPRVUNL. It will also serve as a Basket Linkage to meet the overall demand of coal on NCL including availability of coal for e-auction.  The sand segregated from the OB will be supplied to Govt. Agencies / Private construction organisations.
1.1.5	Distance of End use plant from the pit head of the project in "km"	Kota and Sutagarh TPS of RRVUNL and OBRA TPS of UPRUVNL. It will also serve as basket linkage to meet overall demand of coal from NCL.  The sand segregated from the OB will be supplied to Govt. Agencies / Private construction organisations.

	Parameters	Details
		Cond Constitution of the C
}		Sand Segregation from the OB dumps has been
		proposed of Rs.59.2505 Crores approximately.
1.1.6	Mode of Coal Transport	Coal by Rail. Sand to be transported by Road.
1.2		
	LOCATION, TOPOGRA	PHY AND & COMMUNICATION
1.2.1	Location of coal	District-Singrauli, State-Madhya Pradesh
	deposit (District and	The Expansion of Block-B OCP comprising of two
	State)	geological blocks namely Block-B Block and Block-
		B Extension Block, lies in the north-western part of
		the Moher sub-basin of Singrauli Coalfield.
		Latitude: 24 <sup>0</sup> 8' 59.72"N to 24 <sup>0</sup> 12' 35.31"N Longitude: 82 <sup>0</sup> 31' 48.19"E to 82 <sup>0</sup> 36' 0.12"E
	· ·	Area is covered under survey of India topo-sheet No.63/L/12 Sheet No2 & 4.  The sand segregation plant will be installed within the project boundary in an area of 4 Ha.
1.2.2		The project area is well connected with road and rail. The Project office situated near the northern boundary of the block is on Ranchi-Rewa National highway (NH-75E) and adjacent to Mahadaiya railway station on Katni-Chopan branch line of East-Central Railway. The project is also connected with NCL (HQ), Singrauli by road. The nearest airport is in Varanasi at a distance of 240 Km.

Treatment Plant (STP) of 800 m<sup>3</sup>/d (0.80 MLD) capacity for treatment of domestic effluent from

	Parameters	Details		
		colony. The existing STP has sufficient capacity to cater the need of Expansion Project.		
		The effluent from Mine Discharge, Workshop and CHP is being treated in existing Effluent Treatmet Plant (ETP) of 8620m³/d (8.62 MLD) capacity. The existing ETP has sufficient capacity to cater the need of Expansion Project.		
		The total requirement for 0.5 MGD of domestic/drinking water shall be fulfilled by IWSS source.		
		Industrial water demand of 0.82 MGD for 'OB to Sand' plant shall be fulfilled by mine water/ETP treated water.		
1.2.4	Prominent	The block can be morphologically divided into two		
	physiographic	distinct units' viz. eastern unit and western unit.		
	features, drainage	The western unit is mainly Block-B Geological		
	pattern, natural water	Block, whereas the eastern unit is a part of Block-		
	courses, rainfall data,	B Extension Block.		
	highest flood level	The western unit, which seems parallel to the		
		scrap faces of the plateau, is dissected by		
		numerous streams. The ground elevation varies		
	**	from 375m to 512m above MSL. The drainage of		
		the area is controlled by a number of westerly		
		flowing seasonal streams which are ephemeral		
		and are tributaries of Kachani River which, in turn,		
		joins Rihand River, a main artery of Son Basin.		
		Most of the streams are of multiple nature and		
;		except one, all the streams drain into Karahia		
		Nalla which is a tributary to Kachani river.		
		The eastern part of the project area comprising mainly western part of Block-B Extension Block		
	**	mainy western part of block-b Exterision block		

Parameters	Details
	exhibits undulating terrain with general slope
	towards North-East.
	The surface elevation varies between 413 m to
	505 m above mean sea level. The highest point is
	located in the south-western corner of the block,
	whereas, the lowest point falls in the north-eastern
	corner of the block. The major nala in the block,
	called 'Bijul Nala' is flowing north-easterly. The
	general slope is towards south-east in eastern part
	of the block. There is a water divide trending East-
	West in the northern part of the block. The ground
	slope changes towards north, where, a hilly nala
	is flowing towards east. Many other small nallas
	flow north-easterly and south-easterly discharging
	into the main Bijul nalla, which form the Dendritic
	Drainage network reflecting the undulating terrain
	of the block.
	The Singrauli Coalfield is characterized by tropical
3	climate with three well recognized seasons i.e.
	summer, rainy and winter. During summer, in
	May/June temperature shoots up to 46°C,
	whereas the same goes down to 4°C during
	December/January in winter.
	Monsoon starts from the end of June/beginning of
	July and continues till October. The average
	annual rainfall is 1000mm, of which, about 95%
	precipitates during rainy season. Maximum
	Relative Humidity, during rainy season, varies
	from 55% to 88%, while it varies from 35% to 55%
	and 15% to 56% during winter and summer
	seasons, respectively. Average wind velocity is
	around 5 km per hour blowing in ESE direction

	Parameters	Details
		during the major period of the year. The maximum rainfall in 24 hours was recorded as 225 mm on 20.08.1975 at Jhingurdah Rain Gauge Station located in the coalfield.
1.2.5	Important surface features within the project area and major diversion or shifting involved	There is no major diversion or shifting involved. It has been estimated that around 207 PAFs shall be rehabilitated from the Expansion Area.  For inclusion of sand segregation plant there is no diversion or shifting involved.

**CMPDI** 

### 1.3 DETAILS OF THE ALLOTMENT AGREEMENT

1.3.1	Name of the Allottee	Not Applicable
1.3.2	Details of allotment/ vesting order	
1.3.3	Name and address of the applicant	Block-B OCP (5.47 Mtpa) is an operating mine under Northern Coalfields Limited (NCL), a
1.3.4	Name of the Previous Allottee of the Block	subsidiary of Coal India Limited (Maharatna Company), under the Ministry of Coal, Govt of India. The subject mine falls in Singrauli District of Madhya Pradesh and operating under Block-B Area of NCL.
1.3.5	Starting date of the Mine as per CMDPA	Block-B Opencast Project is operating since 23.03.2007. The PR prepared for a production
1.3.6	Rated Capacity as per CMDPA	capacity of 3.50 Mtpa has been approved by the Govt. of India vide letter No.43011-16-2003-CPMA, dated 7th July, 2006. EC of 5.47 Mpta has been granted by MoEF vide letter No. J-11015/80/2013-IA.II (M), dated 06.08.2014.

<del>-</del> 1		A Expansi	on Project Report	(EPR) has been
		prepared for normative capacity of 8.00 Mtpa and		
		peak capacity of 10.0 Mtpa in order to meet the		
		demand of	power grade coal by	/ NCL.
	<u> </u>			
		The EPR	has been approved	by CIL Board in
		387 <sup>th</sup> mee	ting on .22.07.2019	for an additional
		capital inve	estment of ₹998.71 o	crores with Option-
		•.	al Coal departmen	
		i		
		Outsourcir	ig.	
1.3.7	Production Schedule	Latest EC	has been obtained	vide letter No .No.
	as per opening	J-11015/8	0/2013-IA.II (M), date	ed 06.08.2014 with
	permission (meeting	į.	on capacity of 5.47	
	provisions of CMDPA	1339.00 h		•
	'	1338.00 11	a.	
	if any)	<u> </u>		
1.3.8	End Use of Coal /.			
	Lignite as per		·	
	Allotment order if any			
1.3.9	Cardinal Points co-	Latitude a	nd Longitude of the	points under which
	ordinates of the Block	the project	ct is operating is as	s follows (Cardinal
	boundary	Points B2	49 to B270 is undive	rted forest land):
		Name	Latitude	Longitude
		B1	24°12'03.47138"N	82°35'42.28706"E
		B2	24°12'09.01562"N	82°35'45.07888"E
		B3	24°12'09.85364"N	82°35'42.84512"E 82°35'44.21941"E
		B4	24°12'11.86846"N 24°12'13.06433"N	82°35'45.00791"E
		B6	24°12'16.04334"N	82°35'46.96728"E
		B7	24°12'17.00394"N	82°35'47.63563"E
		B8	24°12'19.15037"N	82°35'49.02205"E
		B9	24°12'20.91227"N	82°35'50.16925"E_
		B10	24°12'21.83023"N	82°35'50.80192"E
		B11	24°12'02.93327"N	82°35'51.66668"E
		B12	24°12'10.12008"N	82°36'10.14820"E 82°36'10.00307"E
		B13	24°12'09.93895"N	82°36'08.05473"E
		B14	24°12'07.68186"N 24°12'04.97726"N	82°36'05.62433"E
		B15 B16	24°12'04.10185"N	82°36'04.84465"E
L		DIO	27 12 07.10100 11	1 1

	·, · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
	B17	24°11'57.24714"N	82°35'58.50588"E
	B18	24°11'53.59299"N	82°35'55.11283"E
1	B19 24°11'49.36801"N		82°35'51.19704"E
İ	B20	24°11'45.77388"N	82°35'47.81424"E
	B21	24°11'42.60521"N	82°35'44.86808"E
	B22	24°11'38.19233"N	82°35'40.81888"E
	B23	24°11'35.92636"N	82°35'38.72790"E
	B24	24°11'31.34420"N	82°35'34,41418"E
	B25	24°11'24.81921"N	82°35'28.35120"E
1	B26	24°11'22.21274"N	82°35'25.91862"E
	B27	24°11'18.89069"N	82°35'22.82089"E
	B28	24°11'14.31073"N	82°35'18.21624"E
	B29	24°11'13.19218"N	82°35'18.25866"E
	B30	24°11'10.87027"N	82°35'18.22994"E
	B31	24°11'09.33951"N	82°35'18.21101"E
	B32	24°11'08.42891"N	82°35'18.10597"E
П	B33	24°11'06.07629"N	82°35'17.72060"E
Ħ	B34	24°11'04.95891"N	82°35'17.65052"E
	B35	24°11'03.89373"N	82°35'17.52486"E
	B36	24°11'02.29690"N	82°35'17.24258"E
	B37	24°10'59.77347"N	82°35'16.74259"E
	B38	24°10'57.42300"N	82°35'16.15099"E
lĺ	B39	24°10'55.93132"N	82°35'15.68254"E
$  \  $	B40	24°10'54.73145"N	82°35'15.27393"E
Ιſ	B41	24°10'51.61342"N	82°35'14.05408"E
	B42	24°10'46.20141"N	82°35'11.77458"E
	B43	24°10'44.60925"N	82°35'11.04241"E
	B44	24°10'38.10421"N	82°35'07.99948"E
ſ	B45	24°10'34.74909"N	82°35'06.42055"E
ſ	B46	24°10'32.59247"N	82°35'05.38143"E
٦	B47	24°10'31.50265"N	82°35'05.96800"E
Γ	B48	24°10'30.57778"N	82°35'05.58159"E
	B49	24°10'28.28280"N	82°35'04.61578"E
ſ	B50	24°10'26.86143"N	82°35'03.99824"E
Γ	B51	24°10'25.10625"N	82°35'02.40161"E
Γ	B52	24°10'23.19700"N	82°35'00.72807"E
Γ	B53	24°10'20.77724"N	82°34'58.52329"E
Γ	B54	24°10'15.63231"N	82°34'53.69751"E
Γ	B55	24°10'11.47464"N	82°34'49.87770"E
	B56	24°10'09.36248"N	82°34'47.86431"E
Γ	B57	24°09'57.57528"N	82°33'57.45903"E
	B58	24°09'57.57385"N	82°33'57.45288"E
	B59	24°09'57.56463"N	82°33'57.41340"E
	B60	24°09'57.39037"N	82°33'56.66843"E
	B61	24°09'57.38658"N	82°33'56.65176"E

	B62	24°09'57.34948"N	82°33'56.60157"E
	B63	24°09'57.02811"N	82°33'55.12329"E
	B64	24°09'56.48928"N	82°33'52.64462"E
	B65	24°09'56.36234"N	82°33'52.10594"E
ļ	B66	24°09'55.68675"N	82°33'49.23899"E
	B67	24°09'55.54766"N	82°33'48.62962"E
	B68	24°09'55.54741"N	82°33'48.62838"E
	B69	24°09'54.92502"N	82°33'45.90140"E
1	B70	24°09'54.75764"N	82°33'45.16814"E
	B71	24°09'54.65513"N	82°33'44.71894"E
[ ]	B72	24°09'54.65604"N	82°33'44.69323"E
]	B73	24°09'54.65879"N	82°33'44.66637"E
	B74	24°09'54.57538"N	82°33'44.32961"E
	B75	24°09'54.47617"N	82°33'43.92917"E
	B76	24°09'54.46269"N	82°33'43.91235"E
	B77	24°09'53.97540"N	82°33'43.30378"E
	B78	24°09'53.56959"N	82°33'42.79700"E
	B79	24°09'53,55836"N	82°33'42.78297"E
	B80	24°09'51.57252"N	82°33'40.30293"E
	B81	24°09'49.41418"N	82°33'36.88790"E
	B82	24°09'47.71607"N	82°33'31.35521"E
į	B83	24°09'45.56603"N	82°33'28.64331"E
	B84	24°09'45.11660"N	82°33'27.25381"E
	B85	24°09'45.08147"N	82°33'27.14522"E
	B86	24°09'43.13011"N	82°33'21.11246"E
	B87	24°09'43.37316"N	82°33'19.49104"E
	B88	24°09'43.28340"N	82°33'16.90266"E
	B89	24°09'42.80707"N	82°33'14.26745"E
	B90	24°09'41.97195"N	82°33'11.38885"E
	B91	24°09'41.63976"N	82°33'08.53038"E
	B92	24°09'41.19981"N	82°33'06.12060"E
	B93	24°09'40.64536"N	82°33'04.82028"E
	B94	24°09'40.48689"N	82°33'03.00382"E
	B95	24°09'40.25788"N	82°33'01.41744"E
	B96	24°09'40.17991"N	82°33'00.61001"E
	B97	24°09'39.99194"N	82°32'59.45616"E
	B98	24°09'39.80495"N	82°32'57.90816"E
	B99	24°09'39.65047"N	82°32'56.98675"E
	B100	24°09'39.28403"N	82°32'55.56375"E
	B101	24°09'38.92290"N	82°32'54.34337"E
	B102	24°09'38.47818"N	82°32'53.15125"E
	B103	24°09'37.55600"N	82°32'50.49516"E
	B103	24°09'37.81639"N	82°32'50.43105"E
	B105	24°09'37.14225"N	82°32'49.04960"E
	B106	24°09'36.51593"N	82°32'47.82717"E
	1 2100	<u> </u>	<u> </u>

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	B107	24°09'35.62547"N	82°32'46.34051"E
	B108	24°09'35.79955"N	82°32'44.29392"E
	B109	24°09'36.82118"N	82°32'40.98773"E
	B110	24°09'38.54545"N	82°32'39.19676"E
	B111	24°09'39.22215"N	82°32'38.83164"E
	B112	24°09'39.82485"N	82°32'38,51924"E
1	B113	24°09'40.45611"N	82°32'38.19205"E
ļ	B114	24°09'40.83459"N	82°32'37.99015"E
	B115	24°09'41.44393"N	82°32'37.79889"E
1	B116	24°09'43.22893"N	82°32'37.23303"E
	B117	24°09'45.88868"N	82°32'37.61832"E
	B118	24°09'46.07240"N	82°32'37.64494"E
	B119	24°09'46.54796"N	82°32'37.75752"E
	B120	24°09'46.99182"N	82°32'37.85001"E
	B121	24°09'47.70764"N	82°32'38.00133"E
	B122	24°09'48.39456"N	82°32'38.16187"E
	B123	24°09'48.37692"N	82°32'38.12474"E
	B124	24°09'48.99847"N	82°32'38.48128"E
	B125	24°09'49.92177"N	82°32'38.90331"E
	B126	24°10'03.98883"N	82°32'45.33300"E
	B127	24°10'04.23659"N	82°32'45.44625"E
	B128	24°10'10.98173"N	82°32'48.52925"E
	B129	24°10'11.00470"N	82°32'48.53977"E
	B130	24°10'14.12057"N	82°32'49.96397"E
	B131	24°10'15.29461"N	82°32'50.43868"E
	B132	24°10'25.10870"N	82°32'54.40688"E
	B133	24°10'27.23602"N	82°32'55,29462"E
ΙĹ	B134	24°10'28.04004"N	82°32'55.64172"E
	B135	24°10'29.77783"N	82°32'56.42296"E
	B136	24°10'29.89209"N	82°32'56.47434"E
1 L	B137	24°10'35.47129"N	82°32'58.98257"E
	B138	24°10'36.34581"N	82°32'59.37576"E
	B139	24°10'36.40206"N	82°32'59.21177"E
łΓ	B140	24°10'36.40621"N	82°32'59.19963"E
	B141	24°10'36.40281"N	82°32'59.20785"E
	B142	24°10'36.45040"N	82°32'58.96513"E
	B143	24°10'36.72371"N	82°32'57.57151"E
Г	B144	24°10'38.11880"N	82°32'50.45710"E
	B145	24°10'38.12483"N	82°32'50.39732"E
	B146	24°10'38.20745"N	82°32'49.57943"E
	B147	24°10'38.18928"N	82°32'48.74881"E
	B148	24°10'42.12460"N	82°32'49.73407"E
	B149	24°10'45.67099"N	82°32'47.52483"E
	B150	24°10'47.47203"N	82°32'53.99468"E
	B151	24°10'46.83296"N	82°32'57.56931"E
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B152	24°10'49.06672"N	82°33'01.90061"E
B153	24°10'49.11233"N	82°33'01.88185"E
B154	24°10'50.47701"N	82°33'01.31702"E
B155	24°10'51.68727"N	82°33'00.71284"E
B156	24°10'53.17445"N	82°32'59.94326"E
B157	24°10'54.19458"N	82°32'59.43050"E
B158	24°10'55.09390"N	82°32'58.95384"E
B159	24°10'56.92678"N	82°32'58.01960"E
B160	24°10'58.53647"N	82°32'57.04521"E
B161	24°11'00.18129"N	82°32'55.99621"E
B162	24°11'02.08544"N	82°32'54.81905"E
B163	24°11'02.58954"N	82°32'54.30008"E
B164	24°11'03.45866"N	82°32'53.41048"E
B165	24°11'06.14828"N	82°32'56.19942"E
B166	24°11'10.64276"N	82°33'00.81035"E
B167	24°11'15.69848"N	82°33'06.04701"E
B168	24°11'19.37588"N	82°33'09.80440"E
B169	24°11'21.78989"N	82°33'12.33008"E
	24°11'22.15022"N	82°33'12.70711"E
B170	24°11'25.45108"N	82°33'16.27254"E
B171 B172	24°11'26.55606"N	82°33'17.56107"E
B172	24°11'28.27375"N	82°33'19.49468"E
	24°11'29.97402"N	82°33'21.44680"E
B174	24°11'32.46299"N	82°33'24.22076"E
B175	24°11'33.96271"N	82°33'25.80950"E
B176	24°11'36.58859"N	82°33'28.71289"E
B177	24°11'36.58659 N	82°33'29.95659"E
B178	24°11'37.06173 N	82°33'29.57119"E
B179	24°11'39.22540"N	82°33'29.49500"E
B180	24°11'40.26694"N	82°33'29.62486"E
B181	24°11'41.73927"N	82°33'29.67791"E
B182	24°11'41.73927 N	82°33'29.69979"E
B183	24°11'43.03870"N	82°33'29.82260"E
B184	24°11'44.35806"N	82°33'30.11992"E
B185	24°11'45.28036"N	82°33'30.34210"E
B186	24°11'45.26036 N	82°33'30.51675"E
B187	24°11'46.14942 N	82°33'30.60479"E
B188	24°11'46.64308 N	82°33'31.08725"E
B189	24°11'47.76703 N 24°11'50.36640"N	82°33'32.37297"E
B190		82°33'32.90493"E
B191	24°11'51.70487"N	82°33'33.08648"E
B192	24°11'52.17606"N	82°33'34.23254"E
B193	24°11'55.81972"N	82°33'34.23254 [82°33'35.24511"]
B194	24°11'59.08846"N	82°33'35.74221"E
B195	24°12'00.44878"N	
B196	24°12'04.85038"N	82°33'37.41327"E

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	B197	24°12'08.12748"N	82°33'38.66044"E
	B198	24°12'12.35289"N	82°33'40.73965"E
1	B199	24°12'16.26809"N	82°33'42.66276"E
-	B200	24°12'19.74437"N	82°33'44.40472"E
ļ	B201	24°12'22.63343"N	82°33'46.79597"E
İ	B202	24°12'26.23679"N	82°33'49.77035"E
	B203	24°12'28.80610"N	82°33'51.88816"E
	B204	24°12'30.52310"N	82°33'53.24543"E
	B205	24°12'33.09068"N	82°33'55.52739"E
ĺ	B206	24°12'36.85008"N	82°33'59.00786"E
-	B207	24°12'40.33177"N	82°34'02.30915"E
	B208	24°12'42.72841"N	82°34'04.48360"E
İ	B209	24°12'43.26771"N	82°34'05.35765"E
1.	B210	24°12'44.11383"N	82°34'06.71605"E
	B211	24°12'44.93797"N	82°34'08.12111"E
	B212	24°12'45.24271"N	82°34'08.80473"E
	B213	24°12'46.13787"N	82°34'10.62093"E
	B214	24°12'46.70496"N	82°34'11.92903"E
	B215	24°12'46.28453"N	82°34'14.12771"E
	B216	24°12'45.75032"N	82°34'16.93453"E
	B217	24°12'45.00349"N	82°34'20.54756"E
	B218	24°12'44.46139"N	82°34'23.07295"E
	B219	24°12'44.11315"N	82°34'24.52226"E
	B220	24°12'43.62075"N	82°34'22.23037"E
ŀ	B221	24°12'43.36553"N	82°34'20.91432"E
11	B222	24°12'42.38601"N	82°34'18.94471"E
	B223	24°12'41.73426"N	82°34'17.50659"E
	B224	24°12'41.02915"N	82°34'16.03267"E
	B225	24°12'40.14319"N	82°34'15.41228"E
	B226	24°12'39.37379"N	82°34'14.95739"E
11	B227	24°12'39.09236"N	82°34'16.18479"E
	B228	24°12'38.78618"N	82°34'17.72839"E
	B229	24°12'38.45887"N	82°34'19.23653"E
	B230	24°12'37.92596"N	82°34'21.91436"E
	B231	24°12'37.31643"N	82°34'24.72019"E
1	B232	24°12'36.91965"N	82°34'26.70808"E
1	B233	24°12'36.30819"N	82°34'29.70144"E
	B234	24°12'35.68523"N	82°34'32.76500"E
	B235	24°12'35.18632"N	82°34'35.26739"E
-	B236	24°12'34.22375"N	82°34'39.97953"E
1  -	B237	24°12'33.17186"N	82°34'45.00706"E
	B238	24°12'32.57203"N	82°34'47.90673"E
-	B239	24°12'31.76104"N	82°34'51.88220"E
	B240	24°12'30.97290"N	82°34'55.72666"E
-	B241	24°12'30.38960"N	82°34'58.47647"E
		_, ,_ 00,000 [4	02 07 00.47047 E

	т		המפסבוסם ממספסיור
	B242	24°12'29.27907"N	82°35'02.30288"E
	B243	24°12'26.48730"N	82°35'11.48175"E
	B244	24°12'25.99439"N	82°35'12.98073"E
3	B245	24°12'20.13281"N	82°35'10.92492"E
	B246	24°12'17.54937"N	82°35'09.99275"E
	B247	24°12'12.53395"N	82°35'08.20681"E
	B248	24°12'03.47138"N	82°35'42.28706"E
	B249	24°11'54.97271"N	82°34'54.52404"E
ļ	B250	24°11'54.10096"N	82°34'53.05607"E
	B251	24°11'51.65128"N	82°34'54.48763"E
	B252	24°11'51.63542"N	82°34'54.49689"E
	B253	24°11'43.38275"N	82°34'59.31960"E
	B254	24°11'43.26226"N	82°35'01.30401"E
	B255	24°11'43.23434"N	82°35'01.76402"E
	B256	24°11'43.18217"N	82°35'02.62291"E
	B257	24°11'45.16844"N	82°35'05.34034"E
	B258	24°11'48.43371"N	82°35'08.00957"E
	B259	24°11'53.56990"N	82°35'12.00252"E
	B260	24°11'55.95021"N	82°35'15.16818"E
	B261	24°11'55.29462"N	82°35'20.65799"E
	B262	24°11'58.33221"N	82°35'22.55527"E
	B263	24°12'00.84748"N	82°35'23.82549"E
į	B264	24°12'02.17030"N	82°35'18.20907"E
	B265	24°12'01.81239"N	82°35'12.83484"E
	B266	24°12'00.18112"N	82°35'06.70966"E
	B267	24°11'57.25488"N	82°34'58.41646"E
	B268	24°11'55.81168"N	82°34'55.95490"E
	B269	24°11'55.21732"N	82°34'54.94118"E
	B270	24°11'54.97271"N	82°34'54.52404"E
		<u> </u>	<u></u>

# 1.4 DETAILS OF THE PREVIOUS APPROVAL OF MINING PLAN

1.4.1	Date of Approval	06.08.2014
1.4.2	Conditions, if any	Not applicable
1.4.3	Scheduled year of start of production	Block-B Opencast, Project is operating since 23.03.2007
	Start of production	20.00.2001
1.4.4	Proposed year of	2045 46
	achieving the targeted	2015-16
	production	
1.4.5	Date of actual	Mine is in operation since 23.03.2007 and is
	commencement of	continuing.

1.4.6	mining operations, if operations already started  Likely date of mining operations, if operations not yet started & reasons for non-commencement of operations			Not	applica	ıble		/
1.4.7	Planned production and actual levels achieved in last 3	Year	Pi Coal	an Product	ion SR	Actu Coal	al Produc	tion SR
	years (Coal in Mte,	2019-20	5.47	32.80	6.00	5.47	1.86	0.34
	OB in Mm³, SR in	2020-21	5.47 5.47	32.80 32.80	6.00 6.00	5.47 5.47	13.11	2.40
	m <sup>3</sup> /t)		V.71	52.00	0.00	5.47	18.14	3.32
1.4.8	Statutory obligations	Existing	coal n	nining op	peration	ns are b	eing ca	ırried
	vis-à-vis compliance	out as pe	er the	following	<b>]:</b>			
	status in a tabular	1. Lates	t EC	has bee	n obta	ined vid	le lettei	· No .
	form	No.	J-11	015/80/	2013-1/	A.II (i	M), (	dated
		06.08	.2014	with a p	product	ion cap	acity of	5.47
		Mtpa	in an a	area of '	1339.00	o ha.		ĺ
		2. Appro	oval of	Sand	Segreg	ation: I	nstallat	ion of
		Sand	Segre	egation i	Plant is	includ	ed in p	resent
	<b>'</b>	modif	ied Mi	ning Pla	n for a	pproval.	•	}
		3. State	permi	ssions:	Reque	st has b	een m	ade to
				mission				1
İ			sh fo	installa	ation o	f Sand	Segre	gation
440		Plant.						
1.4.9	Reasons for					•		
	difference between					_		
ļ	the planned and			Not ap	plicab	le		
	actual production levels							
	ievels ,			. <u> </u>	<del> </del>			

# 1.5 PARAMETERS OF APPROVED MINING PLAN VIS-À-VIS PROPOSED MINING PLAN

		Approved Mining Plan	Proposed Mining Plan
1.5.1	Block Area in "Ha"	608	709
1.5.2	Block Area Projectised "Ha"	Full Area projectized	Full Area projectized
1.5.3	Lease area "Ha"	1339	1756.77
1.5.4	Project Area "Ha"	1339	1756.77
1.5.5	Life of the Project "Yrs"	27	13
1.5.6	Minimum and Maximum Depth of working "m"	15-280	134-285
1.5.7	Net Geological Block "Ha"	608	709
1.5.8	Production Target "Mtpa"	Coal - 5.47 Mtpa	Coal - 10 Mtpa Generation of Manufactured Sand from OB Processing Plant – 2000 m <sup>3</sup> /day
1.5.9	Seams Available "As per GR"	nos. Seams     Purewa Merged     Turra	2 nos. Seams  • Purewa Merged  • Turra
1.5.10	Seams not considered for Mining with Reasons	Kota Seam Thin seam, not techno- economically feasible to extract	Kota Seam Thin seam, not techno- economically feasible to extract
1.5.11	Gross Geological Reserve "Mt"	122.97	160.68
1.5.12	Net Geological Reserve "Mt"	110.67	144.61
1.5.13	· Blocked Reserve "Mt"	Nil	Nil

1.5.14	Minable Reserve		
1.5.14	"Mt"	87.67	138.07
1.5.15	Extractable Reserves "Mt"	87.67	138.07
1.5.16	% of Extraction/	79.21%	95%
1.5.17	Reserve Depleted (till the base date) Reserves "Mt"	25.50	21.88
1.5.18	Balance Extractable	62.17	116.19
	reserve "Mt"	as on 01.04.2014	as on 01.04.2022
1.5.19	Average Grade	G9	G9
1.5.20	OB in Mm <sup>3</sup>	206.14	545.97
	,	As on 01.04.2014	as on 01.04.2022
1.5.21	SR m³/t	3.31	4.70
1.5.22	Mining Technology		Coal & OB-Shovel
	f	Coal & OB-Shovel	Dumper Combination
		Dumper Combination	Sand- Crusher,
	,		Vibrator, Hydrocyclone
1.5.23	Coal Beneficiation envisaged	NA	NA
1.5.24	Handling of Rejects		Sand Segregation
		NA	Plant- Negligible
	,	INA	quantity of clay,
			pebbles
1.5.25	Land use pattem "Ha"		
1	Excavation Area	460.20	709.57
2	Top Soil Dump		•
3	External Dump	429.10	523.10
4	Safety Zone		18.08
5	Other Use		-
6	Infrastructure area (built-up area)	81.10	103.45

7	Green Belt(Afforestation)	183.98	402.57
8	Undisturbed Area	184.62	-
	Total	1339.00	1756.77
1.5.26	Reasons for revision	NA .	Expansion Project Report (EPR) has been prepared for normative capacity of 8.00 Mtpa and peak capacity of 10.0 Mtpa in order to meet the demand of
		ŗ	power grade coal by NCL.  The expansion project involved diversion of 631.39 Ha of forest land (71.976 Ha for mining and 559.416 Ha for OB dumping). However, the proposal of diversion of 631.39 Ha of forest land was rejected by FAC of MoEF&CC.  Therefore, a revised Mining Plan of Block-B OCP (10 Mtpa) is prepared considering the restriction on use of
			forest land for OB dumping by increasing

the dump height from 90m to 120m and flushing the internal and external OB dumps in Vindhya I & II quarry so that bare minimum forest land i.e., 139.86 (45.86Ha excavation and 94.00 Ha for OB dumping) is required for the expansion project. To include sand segregation along with coal mining operations

in the present EC in which Processing of OB (Overburden) to generate Sand and other byproducts from materials OB (Overburden) including other ancilliary activities such as storage of finished products and rejects from the plant (Clay, silt etc.) / mine premises at specified places of Block-B OCP, Singrauli Coalfields. Accordingly, Modified Mining Plan has been prepared for revision.

CHAPTER 2
EXPLORATION, GEOLOGY, SEAM SEQUENCE, COAL QUALITY AND RESERVE

	Parameters		Details		
2.1	DETAILS OF THE BLOCK				
2.1.1		North: Gorbi			
		Block	E	ast: Bijul Block	
	Particulars of adjacent blocks:				
	North, South, East, West	South N	/loher- V	Vest: Incrop of	
	Inorth, Godin, Last, West	Amlorhi		urra Seam	
				una ocam	
		Extensi	on Block		
2.1.2	Location of the Block	   District=	Singrauli State	e-Madhya Pradesh	
	District / State	District	ı	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
2.1.3	Area of the Block "Ha"		70	9	
2.1.4	Area of the geological block				
	projectized "in Ha" (Area of the				
	'		70	9	
	geological block considered for				
	liquidation of coal reserve)		ŧ		
2.1.5	Balance area yet to be		_		
	projectized "Ha"				
2.1.6	Likely reserve in the area yet to		_		
	be projectized "in Ha"				
2.1.7	Cardinal Points Co-ordinates of			ck-B OCP Leasehold	
	the non-coal/lignite bearing			to B270 is undiverted	
	area/existing mine lease	forest la			
ļ	outside the allotted Geological	Name	Latitude	Longitude	
		B1 B2	24°12'03.47138 24°12'09.01562		
	Coal Lignite block	B3	24°12'09.85364		
	(Duly certified in line with para	B4	24°12'11.86846		
	1.9 of the Guideline, if fresh	B5	24°12'13.06433		
	mining lease required)	B6	24°12'16.04334		
	,	B7	24°12'17.00394		
		B8	24°12'19.15037		
		B9	24°12'20.91227		
		B10	24°12'21.83023		
		B11	24°12'02.93327 24°12'10.12008		
		B12	24 12 10, 12000	714 02 00 10.1-1020 2	

D13	24 12 09.93093 N	62 36 10.00307 E
B14	24°12'07.68186"N	82°36'08.05473"E
B15	24°12'04.97726"N	82°36'05.62433"E
B16	24°12'04.10185"N	82°36'04.84465"E
B17	24°11'57.24714"N	82°35'58.50588"E
B18	24°11'53.59299"N	82°35'55.11283"E
B19	24°11'49.36801"N	82°35'51.19704"E
B20	24°11'45.77388"N	82°35'47.81424"E
B21	24°11'42.60521"N	82°35'44.86808"E
B22	24°11'38.19233"N	82°35'40.81888"E
B23	24°11'35.92636"N	82°35'38.72790"E
B24	24°11'31.34420"N	82°35'34.41418"E
B25	24°11'24.81921"N	82°35'28.35120"E
B26	24°11'22.21274"N	82°35'25.91862"E
B27	24°11'18.89069"N	82°35'22.82089"E
B28	24°11'14.31073"N	82°35'18.21624"E
B29	24°11'13.19218"N	82°35'18,25866"E
B30	24°11'10.87027"N	82°35'18.22994"E
B31	24°11'09.33951"N	82°35'18.21101"E
B32	24°11'08.42891"N	82°35'18.10597"E
B33	24°11'06.07629"N	82°35'17.72060"E
B34	24°11'04.95891"N	82°35'17.65052"E
B35	24°11'03.89373"N	82°35'17.52486"E
B36	24°11'02.29690"N	82°35'17.24258"E
B37	24°10'59.77347"N	82°35'16.74259"E
B38	24°10'57.42300"N	82°35'16.15099"E
B39	24°10'55.93132"N	82°35'15.68254"E
B40	24°10'54.73145"N	82°35'15.27393"E
B41	24°10'51.61342"N	82°35'14.05408"E
B42	24°10'46.20141"N	82°35'11.77458"E
B43	24°10'44.60925"N	82°35'11.04241"E
B44	24°10'38.10421"N	82°35'07.99948"E
B45	24°10'34.74909"N	82°35'06.42055"E
B46	24°10'32.59247"N	82°35'05.38143"E
B47	24°10'31.50265"N	82°35'05.96800"E
B48	24°10'30.57778"N	82°35'05.58159"E
B49	24°10'28.28280"N	82°35'04.61578"E
B50	24°10'26.86143"N	82°35'03.99824"E
B51	24°10'25.10625"N	82°35'02.40161"E
B52	24°10'23.19700"N	82°35'00.72807"E
B53	24°10'20.77724"N	82°34'58.52329"E
B54	24°10'15.63231"N	82°34'53.69751"E
B55	24°10'11.47464"N	82°34'49.87770"E
B56	24°10'09.36248"N	82°34'47.86431"E
B57	24°09'57.57528"N	82°33'57.45903"E

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		0.4000157 57005051	00000157 45000115
	B58	24°09'57.57385"N	82°33'57.45288"E
	B59	24°09'57.56463"N	82°33'57.41340"E
'	B60	24°09'57,39037"N	82°33'56.66843"E
	B61	24°09'57.38658"N	82°33'56.65176"E
	B62	24°09'57.34948"N	82°33'56.60157"E
	B63	24°09'57.02811"N	82°33'55.12329"E
	B64	24°09'56.48928"N	82°33'52.64462"E
	B65	24°09'56,36234"N	82°33'52,10594"E
	B66	24°09'55.68675"N	82°33'49.23899"E
	B67	24°09'55.54766"N	82°33'48.62962"E
	B68	24°09'55,54741"N	82°33'48.62838"E
	B69	24°09'54.92502"N	82°33'45.90140"E
	B70	24°09'54.75764"N	82°33'45.16814"E
	B71	24°09'54.65513"N	82°33'44.71894"E
	B72	24°09'54.65604"N	82°33'44.69323"E
	B73	24°09'54.65879"N	82°33'44.66637"E
	B74	24°09'54.57538"N	82°33'44.32961"E
	B75	24°09'54.47617"N	82°33'43.92917"E
	B76	24°09'54.46269"N	82°33'43.91235"E
	B77	24°09'53.97540"N	82°33'43.30378"E
	B78	24°09'53.56959"N	82°33'42.79700"E
	B79	24°09'53.55836"N	82°33'42.78297"E
	B80	24°09'51.57252"N	82°33'40,30293"E
	B81	24°09'49.41418"N	82°33'36.88790"E
	B82	24°09'47.71607"N	82°33'31.35521"E
	B83	24°09'45.56603"N	82°33'28.64331"E
	B84	24°09'45.11660"N	82°33'27.25381"E
	B85	24°09'45.08147"N	82°33'27.14522"E
	B86	24°09'43.13011"N	82°33'21.11246"E
	B87	24°09'43.37316"N	82°33'19.49104"E
	B88	24°09'43.28340"N	82°33'16.90266"E
	B89	24°09'42.80707"N	82°33'14.26745"E
	B90	24°09'41.97195"N	82°33'11.38885"E
	B91	24°09'41.63976"N	82°33'08.53038"E
	B92	24°09'41.19981"N	82°33'06.12060"E
	B93	24°09'40.64536"N	82°33'04.82028"E
	B94	24°09'40.48689"N	82°33'03,00382"E
	B95	24°09'40.25788"N	82°33'01.41744"E
	B96	24°09'40.17991"N	82°33'00.61001"E
	B97	24°09'39.99194"N	82°32'59.45616"E
	B98	24°09'39.80495"N	82°32'57.90816"E
	B99	24°09'39.65047"N	82°32'56.98675"E
	B100	24°09'39.28403"N	82°32'55.56375"E
	B101	24°09'38.92290"N	82°32'54.34337"E
	B102	24°09'38.47818"N	82°32'53.15125"E

<del></del>	· · · · · · · · · · · · · · · · · · ·			
		B103	24°09'37.55600"N	82°32'50.49516"E
		B104	24°09'37.81639"N	82°32'50.43105"E
		B105	24°09'37.14225"N	82°32'49.04960"E
		B106	24°09'36.51593"N	82°32'47.82717"E
		B107	24°09'35.62547"N	82°32'46.34051"E
		B108	24°09'35.79955"N	82°32'44.29392"E
		B109	24°09'36.82118"N	82°32'40.98773"E
		B110	24°09'38.54545"N	82°32'39.19676"E
•		B111	24°09'39.22215"N	82°32'38.83164"E
		B112	24°09'39.82485"N	82°32'38.51924"E
		B113	24°09'40.45611"N	82°32'38.19205"E
	n e	B114	24°09'40.83459"N	82°32'37.99015"E
		B115	24°09'41.44393"N	82°32'37.79889"E
		B116	24°09'43.22893"N	82°32'37.23303"E
		B117	24°09'45.88868"N	82°32'37.61832"E
		B118	24°09'46.07240"N	82°32'37.64494"E
		B119	24°09'46.54796"N	82°32'37.75752"E
		B120	24°09'46.99182"N	82°32'37.85001"E
		B121	24°09'47.70764"N	82°32'38.00133"E
		B122	24°09'48.39456"N	82°32'38.16187"E
		B123	24°09'48.37692"N	82°32'38.12474"E
	İ	B124	24°09'48.99847"N	82°32'38.48128"E
		B125	24°09'49.92177"N	82°32'38.90331"E
		B126	24°10'03.98883"N	82°32'45.33300"E
	,	B127	24°10'04.23659"N	82°32'45.44625"E
	İ	B128	24°10'10.98173"N	82°32'48.52925"E
		B129	24°10'11.00470"N	82°32'48.53977"E
	·	B130	24°10'14.12057"N	82°32'49.96397"E
		B131	24°10'15.29461"N	82°32'50.43868"E
ļ		B132	24°10'25.10870"N	82°32'54.40688"E
		B133	24°10'27.23602"N	82°32'55.29462"E
		B134	24°10'28.04004"N	82°32'55.64172"E
ŀ		B135	24°10'29.77783"N	82°32'56.42296"E
ŀ		B136	24°10'29.89209"N	82°32'56.47434"E
İ		B137	24°10'35.47129"N	82°32'58,98257"E
!		B138	24°10'36.34581"N	82°32'59.37576"E
1		B139	24°10'36.40206"N	82°32'59.21177"E
		B140	24°10'36.40621"N	82°32'59.19963"E
-		B141	24°10'36.40281"N	82°32'59.20785"E
		B142	24°10'36.45040"N	82°32'58.96513"E
	ſ	B143	24°10'36.72371"N	82°32'57.57151"E
^		B144	24°10'38.11880"N	82°32'50.45710"E
		B145	24°10'38.12483"N	82°32'50.39732"E
	ļ	B146	24°10'38,20745"N	82°32'49.57943"E
-		B147	24°10'38.18928"N	82°32'48.74881"E

	D140	24°10'42.12460"N	82°32'49.73407"E
	B148	24°10'45.67099"N	82°32'47.52483"E
	B149 B150	24°10'47.47203"N	82°32'53,99468"E
	B150	24°10'46.83296"N	82°32'57.56931"E
	B151	24°10'49.06672"N	82°33'01.90061"E
	B152	24°10'49.11233"N	82°33'01.88185"E
	B153	24°10'50.47701"N	82°33'01.31702"E
	B154	24°10'51.68727"N	82°33'00.71284"E
	B156	24°10'53.17445"N	82°32'59.94326"E
	B155	24°10'54.19458"N	82°32'59.43050"E
	B157	24°10'55.09390"N	82°32'58.95384"E
	$\vdash$	24°10'56.92678"N	82°32'58.01960"E
·	B159	24°10'58.53647"N	82°32'57.04521"E
	B160	24°11'00.18129"N	82°32'55.99621"E
	B161	24°11'00.18129 N	82°32'54.81905"E
	B162	24°11'02.58954"N	82°32'54.30008"E
	B163	24°11'03.45866"N	82°32'53.41048"E
	B164 B165	24°11'06.14828"N	82°32'56.19942"E
	B166	24°11'10.64276"N	82°33'00.81035"E
	B167	24°11'15.69848"N	82°33'06.04701"E
	B168	24°11'19.37588"N	82°33'09.80440"E
	B169	24°11'19.37388 N	82°33'12.33008"E
	B170	24°11'22.15022"N	82°33'12,70711"E
, l	B171	24°11'25.45108"N	82°33'16.27254"E
<b> </b>	B171	24°11'26.55606"N	82°33'17.56107"E
	B173	24°11'28.27375"N	82°33'19,49468"E
	B174	24°11'29.97402"N	82°33'21.44680"E
	B175	24°11'32.46299"N	82°33'24,22076"E
	B176	24°11'33.96271"N	82°33'25.80950"E
	B177	24°11'36.58859"N	82°33'28,71289"E
	B178	24°11'37.66175"N	82°33'29.95659"E
	B179	24°11'38.74081"N	82°33'29.57119"E
	B180	24°11'39.22540"N	82°33'29.49500"E
	B181	24°11'40.26694"N	82°33'29.62486"E
	B182	24°11'41.73927"N	82°33'29.67791"E
	B183	24°11'42.57764"N	82°33'29.69979"E
	B184	24°11'43.03870"N	82°33'29.82260"E
	B185	24°11'44.35806"N	82°33'30.11992"E
	B186	24°11'45.28036"N	82°33'30.34210"E
	B187	24°11'46.14942"N	82°33'30.51675"E
	B188	24°11'46.64308"N	82°33'30.60479"E
	B189	24°11'47.76703"N	82°33'31.08725"E
	B190	24°11′50.36640″N	82°33'32.37297"E
	B191	24°11'51.70487"N	82°33'32.90493"E
	B192	24°11'52.17606"N	82°33'33.08648"E
	15.02	27 1102111030	

	B193	24°11'55.81972"N	82°33'34.23254"E
	B194	24°11'59.08846"N	82°33'35.24511"E
	B195	24°12'00.44878"N	82°33'35.74221"E
	B196	24°12'04.85038"N	82°33'37.41327"E
<b>*</b>	B197	24°12'08.12748"N	82°33'38.66044"E
	B198	24°12'12.35289"N	82°33'40.73965"E
	B199	24°12'16.26809"N	82°33'42.66276"E
	B200	24°12'19.74437"N	82°33'44.40472"E
	B201	24°12'22.63343"N	82°33'46.79597"E
	B202	24°12'26.23679"N	82°33'49.77035"E
	B203	24°12'28.80610"N	82°33'51.88816"E
	B204	24°12'30.52310"N	82°33'53.24543"E
	B205	24°12'33,09068"N	82°33'55.52739"E
	B206	24°12'36.85008"N	82°33'59.00786"E
	B207	24°12'40.33177"N	82°34'02.30915"E
	B208	24°12'42.72841"N	82°34'04.48360"E
	B209	24°12'43.26771"N	82°34'05.35765"E
'p	B210	24°12'44.11383"N	82°34'06.71605"E
	B211	24°12'44.93797"N	82°34'08.12111"E
	B212	24°12'45.24271"N	82°34'08.80473"E
	B213	24°12'46.13787"N	82°34'10.62093"E
	B214	24°12'46.70496"N	82°34'11.92903"E
]	B215	24°12'46.28453"N	82°34'14.12771"E
	B216	24°12'45.75032"N	82°34'16.93453"E
	B217	24°12'45.00349"N	82°34'20.54756"E
	B218	24°12'44.46139"N	82°34'23.07295"E
	B219	24°12'44.11315"N	82°34'24.52226"E
	B220	24°12'43.62075"N	82°34'22.23037"E
	B221	24°12'43,36553"N	82°34'20.91432"E
· ,	B222	24°12'42.38601"N	82°34'18.94471"E
· · · · · · · · · · · · · · · · · · ·	B223	24°12'41.73426"N	82°34'17.50659"E
	B224	24°12'41.02915"N	82°34'16.03267"E
	B225	24°12'40.14319"N	82°34'15.41228"E
	B226	24°12'39.37379"N	82°34'14.95739"E
	B227	24°12'39.09236"N	82°34'16.18479"E
	B228	24°12'38.78618"N	82°34'17.72839"E
	B229	24°12'38.45887"N	82°34'19.23653"E
}	B230	24°12'37.92596"N	82°34'21.91436"E
	B231	24°12'37.31643"N	82°34'24.72019"E
	B232	24°12'36.91965"N	82°34'26.70808"E
	B233	24°12'36.30819"N	82°34'29.70144"E
	B234	24°12'35.68523"N	82°34'32.76500"E
*#	B235	24°12'35.18632"N	82°34'35.26739"E
· J	B236	24°12'34.22375"N	82°34'39.97953"E
	B237	24°12'33.17186"N	82°34'45,00706"E

		B238	24°12'32.57203"N	82°34'47.90673"E
		B239	24°12'31.76104"N	82°34'51.88220"E
		B240	24°12'30.97290"N	82°34'55.72666"E
		B241	24°12'30.38960"N	82°34'58.47647"E
		B242	24°12'29.27907"N	82°35'02.30288"E
		B243	24°12'26.48730"N	82°35'11.48175"E
		B244	24°12'25.99439"N	82°35'12.98073"E
		B245	24°12'20.13281"N	82°35'10.92492"E
		B246	24°12'17.54937"N	82°35'09.99275"E
		B247	2 <b>∕</b> °12'12.53395"N	82°35'08.20681"E
		B248	24°12'03.47138"N	82°35'42.28706"E
		B249	24°11'54.97271"N	82°34'54.52404"E
		B250	24°11'54.10096"N	82°34'53.05607"E
١,		B251	24°11'51.65128"N	82°34'54.48763"E
		B252	24°11'51.63542"N	82°34'54.49689"E
		B253	24°11'43.38275"N	82°34'59.31960"E
		B254	24°11'43.26226"N	82°35'01.30401"E
		B255	24°11'43.23434"N	82°35'01.76402"E
		B256	24°11'43.18217"N	82°35'02.62291"E
		B257	24°11'45.16844"N	82°35'05.34034"E
		B258	24°11'48.43371"N	82°35'08.00957"E
		B259	24°11'53.56990"N	82°35'12.00252"E
		B260	24°11'55.95021"N	82°35'15.16818"E
		B261	24°11'55.29462"N	82°35'20.65799"E
		B262	24°11'58.33221"N	82°35'22.55527"E
		B263	24°12'00.84748"N	82°35'23.82549"E
		B264	24°12'02.17030"N	82°35'18.20907"E
		B265	24°12'01.81239"N	82°35'12.83484"E
		B266	24°12'00.18112"N	82°35'06.70966"E
		B267	24°11'57.25488"N	82°34'58.41646"E
		B268	24°11'55.81168"N	82°34'55.95490"E
		B269	24°11'55.21732"N	82°34'54.94118"E
		B270	24°11'54.97271"N	82°34'54.52404"E
2.1.8	Certificate of Qualified person/			
	Accredited Mining Plan		4	
	preparing agency (MPPA) if the			
	project area is confined with in		Not applica	able
	the vested / allotted block			
	boundary / existing mining lease			
	and			
L		L		

	Where the project area extends	
	beyond the block boundary, a	
	certificate of Qualified person/	
	Accredited Mining Plan	
	preparing agency (MPPA)	
	should be supported with a	
	certificate of State Government	
	mines and Geology department	
	must be attached, which should	
	specify (a) intent of the state	
	government for grant of lease	
	beyond the vested geological	
	boundary; (b) non-existence of	
	Coal/ Lignite in the area beyond	
	the vested/allotted geological	
	block boundary / existing	
	mining lease to rule out the	
	issue of encroachment and use	
	of coal bearing area (beyond	
	the vested/allotted block bou	
	ndary/existing mining lease in	
	the mining plan.	
	The Project area, Lease area	
	and geological block area in	
	"Ha" shall also be envisaged.	
	Any other adjacent block, and	
	non-coal bearing certificate of	
	the area in case any proposed	
	infrastructure or OB dump is	
	outside the block	
2.1.9	KML file of the Proposed lease	
	area, Project Area and	Attached as Annexure-III
	geological block.	

2.1.10	Whether the proposed project area is confined within the allotted block boundary/existing mining lease, if not, the reason for deviation from allotted block boundary, may be given.	The subject mine is an existing and operating mine. Yes
2.1.11	If the project area extends outside the allotted block boundary/existing mining lease, confirmation about non-occurrence of coal/lignite in the area under reference needs to be furnished	Not applicable
2.1.12	Type of the Project (Operating / under Implementation) and year of Starting.	Block-B Opencast Project is an operating mine since 23.03.2007 with an EC of 5.47 Mtpa. Block-B OCP has produced 66.66 Mt of coal and removed 223.65 Mm³ of OB till 31.03.2022.  Sand Segregation Plant operation is likely to be started by April, 2024.
2.2	EXPLORATION, GEOLOGY AND	O ASSESSMENT OF RESERVE
2.2.1	sequence, characteristics of /partings/overburden).  The proposed mining block, locat covered by rocks of Talchir, Karha and alluvium cover at places. Ba	e area, local geology, structure, stratigraphic the litho-logical units (coal seams ed in the western part of Moher sub-Basin, is arbari and Barakar formations with recent soil used on the sub-surface data generated from gical sequence of the block is given below:

SI. No	Form-ation	Coal Seams	Thickness of formation	Lithology
1	Recent	-	0.00-7.65 m	Sandy soil and alluvial soil
2	Barakar	Purewa , Turra & Turra A	Upto 190 m	Very coarse to coarse grained whitish sandstones with subordinate grey shale, clay and coal seams.
3	Karharbari , <b>l</b>	Kota	145 to 170 m	Very coarse to medium grained sandstones and sandy shales, at places conglomeratic with thin coal seams.
4	Talchir	-	Above 20 m full thickness not proved	Khaki grey shales and fine grained sandstone

2.2.2 Local geology, Structure, Stratigraphic sequence, Characteristics of the lithological units (coal seams /partings/overburden).

The proposed mining block, located in the western part of Moher sub-Basin, is covered by rocks of Talchir, Karharbari and Barakar formations with recent soil and alluvium cover at places.

The seams exhibit north-south strike and are dipping easterly. In the northern portion, amount of dip is around 22 degrees which, gradually flattens out to 8 degrees in the south within Block-B block, whereas, in Block B Extension block area strike is east – west in the north and eastern part with 2 to 3 degree dip towards north and it swings to north-south towards west with easterly dip of around 7 to 8 degrees.

A generalized sequence of coal seams and partings within the block area under report is as follows:

**CMPDI** 

Particulars ·	Area of Developmen t (sq. km)	Thickness range (m)	UHV Grade range	Geological Reserve	GCV Grade range
1	2	3	4	7	8
Surface Cover	14.60	0-270	-	-	-
Purewa Merged	8,29	8-30.10	G-C	274.21	G15-G5
Parting	-	60-80	-	_	-
Turra	10.46	12.16-22.95	E-B	244.51	G9-G6
Parting	-	7.75-34.90	-	-	-
Turra A	-	0.35-2.15	UG-A	3,35	G16-G1
Parting	-	31.90-79.41	-	-	-
Kota	-	0,20-3.76	F-B	1.95	G12-G4

# Brief description of faults is given in Table below:

	_ , ,	7	Throw	
Fault No	Extent	Trend	Direction	Amount
F 15 (As in older Block-B GR)	This fault appears to be dying in the eastern portion.	E – W strike	South	15m
F 16 (As in older Block-B GR)	This fault also appears to be dying in the eastern portion.	E –W strike	North	10M
F19 (F 2 of Block-BExtn. block GR)	Major fault dividing Vidhya and Gorbi 'C' sectors, exten-ding into Block B Extension renamed as F2)	NE-SE to E W	South	55m – 90m
F18 (Fault F1 of Block-B Extn. Block GR)	Sympathetic fault of F 19, extending into Block B Extension block, renamed as F1.	E-W	South	15m
F20 (F3 of Block B Extn. block GR)	A major fault demarcating the northern boundary with Block B Extn, Phase-II, eastern extension renamed as F3 out of the Block B.	; ENE TO WSW	South	Approx. 100m- 220m
F-17	Vindhya sub-block	NE-SW	North-westerly	90m

2.2.3	Geological Block Area " Ha"	709
2.2.4	Status of Exploration of the	Fully Explored

			-	Agenc	y wise	drill	ing	
		Explora -tion	ВН		od of ation	t	rilling	
		Agency	Series	From	То	No. of Bhs	Meterage	Type of expin.
ļ		A. Bloci	k B block	(Revised	! area 7,00 s	q.km.)	<u>.l</u>	l
		GSI	SN	1961		4	851.37	Regional
ĺ		NCDC	NCSB	May 1971	May 1972	25	2652. 86	Semi Detailed
		CMPDI	CMSM	Dec. 1984	Jan, 1985	4	316.20	Detailed during Moher Block
J	þ		CMSB	Sept.1986	April 1988	93	10289.95	Detailed
ĺ	f		T	otal		126	14110.38	-
		1 —	<del>,                                    </del>	n block (Are	a 7.60 sq.km	٠)	,	
		CMPDI	CMSB	Feb 1987	Mar 1988	8	1338.70	Detailed
		CMPDI	CMAE	Feb 2004	Jun 2004	7	2188.00	Detailed
		CMPDI	CMBJ	Jun 2008	Jul. 2008	1	317.00	Detailed
		CMPDI	CMBE	Apr. 1999	Jul, 2009	101	30603.00	Detailed
			7	otal		117	34446.70	-
		l ———			lock (Area 7.		r.)	
		GSI	SN	1961	1963	2	442.65	Regional
		CMPDI	CMSB	Feb. 1987	March 1987	1	120.95	Detailed
		CMPDI	СМВЈ	June 2008	July 2008	2	533.00	Detailed
	þ	CMPDI	CMBE	March 2005	March 2009	37	8639.00	Detailed
		CMPDI	CMBE	Feb. 2015	March 2015	19	2003,00	Detailed
ļ			To	tal		61	11738.60	-
		The are Mtpa) is			-	ores	ent pro	oject (8
;		Part of I	Block	-B Ge	ologica	al Bl	ock -	3.65
	ļ.	Part of 3.16 Sq		k-B Ex	ktn. Ge	oloe	gical I	Block -
	,	Part of Block-I			ase-	ll Geo	ological	
		Total -		-				-
								į

		Ï	Explo	ratory B projecti	oreho	oles withi area	n
		Year	Agency	Block Name	Area sq. km)	Number of boreholes	Meterag e
		1	2	3	4	5	6
			GSI			2 (SN63,68)	435.57
	•		NCDC	Block B	3.65	3 (NCSB- 4,14,23)	377.37
			CMPDI			25 (CMSB)	3824,15
		To	otal			34	4637.09
		<u> </u>	T			8 (CMSB)	1338.70
		<del></del>	CMPDI			4 (CMAE)	1252.00
			-	Block B Extn.	3.16	32 (CMBE)	9048.00
_		To	otal	-		44	11638.70
		Sub	-Total	<u> </u>	6.81	78	16275.79
	•		CMPDI	Block B		1(CMSB- 30)	120.95
		-	1	Extn Ph-II		1(CMBE-72)	130.10
		T	otal		0.28	2	251.05
		-	Grand	Total	7.09	80	16526.84
2.2.5	Area covered by 'detailed' exploration within the block (sq. km)				l Area	1	
2.2.6	Whether entire lease area has been covered by 'detailed' exploration.				es		
2.2.7	No. of boreholes drilled within the block				80		
2.2.8	Whether any further exploration/study is required or suggested and time frame in which it is to be completed				NA		
2.2.9	Year wise future programme of exploration			Not i	equir	ed	
2.2.10	Overall borehole density within the block (no./ sq. km) approx				11		
2.2.11	No of Seams available as per GR (Geological Report)	this r	eport wa me a	om and a		viations u	sed in
		Kota	<u> </u>				

2.2.12	Seams not considered Mining with Reasons	Kota seam & Turra-A Seam (Very thin)					
2.2.13			<del></del>	4°-22°			
. 2.2.14	Seam wise thickness, de	pth and	reserve	•			
	Description of all coal seams wit	Description of all coal seams within the Block					
	Stantownship Community	Thickn	ess(m)	Geological Reserves (Mt)	Mineable Reserves (Mt) as		
	Strategraphic Sequence	Min.	Max.	(As on 01.04.2018)	per PR (As on 01.04.2018)		
	Top partings	63,78	210,50	-	-		
	Purewa Merged Seam	8.00	31.10	77.62	74.22		
	Parting between Purewa Merged & Turra seam	60.00	80.00	-			
	Turra Seam à	12.16	26.23	66.99	63.85		
2.2.15	Total			144.61	138.07		
	Methodology of reserves estimation (also mention if any software package has been used).		AUTOCAD software is being used for reserve estimation. Grade Wise, Seam wise and Depth wise Tonnage of coal is calculated using the Detailed Resource Reporting method of MINEX software.				
2.2.16	Wt. Average GCV "KCal/k	g"	G-9				
2.2.17	Gross Geological Reserthe block "Mt"	ve of	144.61				
2.2.18	Net Geological Reserve of block "Mt"	of the	144.61				
2.2.19	Minable Reserve of the "Mt"	block	138.07				
2.2.20	Blocked Reserve "Mt"		-				
2.2.21	Corresponding extractable reserve of the block "Mt"		-				
2.2.22	Percentage of Extraction		95%				
2.2.23	Reserve already depleted (Base date of Mining Plan)		21.88 (upto 2021-22)				
2.2.24	Balance Reserve (as on Date)	Base	116.19 (As on 01.04.2022)				

#### **CHAPTER 3**

#### MINING

	Parameters	Details
3.1	MINING METHOD	
3.1.1	Existing method of	Block-B OCP (5.47 Mtpa) is being worked by system
	mining if the mine is	of mining using shovel-dumper system.
	under operation	
3.1.2	Proposed method of	It is proposed to continue with existing shovel-
	mining with	dumper combination of mining.
	justification on	
	suitability of method	The criteria for selection of mining method for the
	of mining	proposed block is as follows:
		i) The proposed mine is an extension/expansion of
		existing Block-B Opencast Project;
		ii) The occurrence of moderately thick coal seam i.e.
		Turra Seam (15-25m) and Purewa Merged Seam
		(19-25m) leads to a stripping ratio of 4.33m <sup>3</sup> /t in
		the proposed mining area.
		iii) Grade of the seam varies between G7 to G13 (in GCV).
		iv)The proposed area is free from any permanent
		structure or major surface features.
		Further, based on the floor gradient pattern, the entire mine has been divided into two sub-blocks i.e.
		Gorbi-B & C and Vindhya-I & II.
		Gorbi-B & C is limited by the fault F-20 and F-19
		having floor gradient varying from 12° to 22°. In this
		block, horizontal slicing method has been
		proposed.
		Vindhya-I & II block is limited by the fault F-19 and
		boundary of Moher and Moher-Amlohri Block having

	Parameters	Details
		floor gradient varying from 4° to 12°. In this block
		inclined seam method has been proposed.
3.1.3	Coal production capacity proposed "Mtpa"	10 Mtpa
3.1.4	Justification for optimization of Coal-production capacity	The mining plan has been prepared for the purpose of obtaining Environmental Clearance for increase in coal production capacity of Block-B OCP from 5.47 Mtpa to 10 Mtpa for supply of coal to thermal power stations and other consumers to meet the increase energy demand in the country.
3.1.5	Calendar year from which the production will start	2022-23
3.1.6	Year of achieving rated production	2024-25
217	TENTATIVE COAL DO	ODUCTION DUAN (SMA)

#### 3.1.7 | TENTATIVE COAL PRODUCTION PLAN "Mt"

,,	Year	Turra Seam	Purewa Merged Seam	Total Coal
Yr-1	2022-23	2.97	2.50	5.47
Yr-2	2023-24	4.34	3.66	8.00
Yr-3	2024-25	5.43	4.57	10.00
Yr-4	2025-26	5.43	4.57	10.00
Yr-5	2026-27	5.43	4.57	10.00
Yr-6	2027-28	5.43	4.57	10.00
Yr-7	2028-29	5.43	4.57	10.00
Yr-8	2029-30	5.44	4.56	10.00
Yr-9	2030-31	5.46	4.54	10.00
Yr-10	2031-32	5.48	4.52	10.00
Yr-11	2032-33	4.92	4.08	9.00
Yr-12	2033-34	4.37	3.63	8.00
Yr-13	2034-35	3.15	2.57	5.72
T	otal	63.28	52.91	116.19

Parameters	Details

## TENTATIVE OB PRODUCTION PLAN "MCUM"

`	<b>Year</b>	Top OB	Parting	Total OB
Yr-1	2022-23	24.36	7.73	32.09
Yr-2	2023-24	28.73	11.27	40.00
Yr-3	2024-25	35.82	14.18	50.00
Yr-4	2025-26	35.81	14.19	50.00
Yr-5	2026-27	35.82	14.18	50.00
Yr-6	2027-28	35.81	14.19	50.00
Yr-7	2028-29	35.82	14.18	50.00
Yr-8	2029-30	35.79	14.21	50.00
Yr-9	2030-31	35.71	14.29	50.00
Yr-10	2031-32 1	30.66	14.40	45.06
Yr-11	2032-33	22.90	13.10	36.00
Yr-12	2033-34	16.36	11.64	28.00
Yr-13	2034-35	6.68	8.14	14.82
1	Total		165.70	545.97

## SUMMARISED CALENDAR PROGRAMME FOR MINE

Y	ear	Coal (Mt)	OB (Mm³)	SR	
Yr-1	2022-23	5.47	32.09	5.86	
Yr-2	2023-24	8.00	40.00	5.00	
Yr-3	2024-25	10.00	50.00	5.00	
Yr-4	2025-26	10.00	50.00	5.00	
Yr-5	2026-27	10.00	50.00	5.00	
Yr-6	2027-28	10.00	50.00	5.00	
Yr-7	2028-29	10.00	50.00	5.00	
Yr-8	2029-30	10.00	50.00	5.00	
Yr-9	2030-31	10.00	50.00	5.00	
Yr-10	2031-32	10.00	45.06	4.51	
Yr-11	2032-33	9.00	36.00	4.00	
Yr-12	2033-34	8.00	28.00	3.50	
Yr-13	2034-35	5.72	14.82	2.59	
To	otal	116.19	545.97	4.70	

3.1.8	Rated Capacity "Mtpa"	
	- By OC	10 Mtpa
	- By UG	-
	- Overall	10 Mtpa
3.1.9	Life of the mine: "Years"	
	- By OC	13
	- By UG	-
	- Overall	13
	Parameters ·	Details
3.1.10	Whether the	
Ì	proposed	
	external OB	
	dump site is coal	•
	bearing: If so,	No ·
ĺ	whether coal/	INO
	lignite below	
	waste disposal	
	area is	
	extractable.	
3.1.11	Whether	
	negative proving	•
	for coal/ lignite in	
	the proposed site	Not required.
	for OB dump/	Not rodanou.
	infrastructure	
	has been done.	
2440		
3.1.12	Results of any	Scientific studies for slope stability for pit and dump slopes
	investigation	for increasing the dump height from 90m to 120m for
	carried out for	accommodating overburden. Further, hydro-geology study
	scientific mining,	and washability study proposed.
	conservation of	
	minerals and	
	protection of	
ļ	environment;	
	future proposals.	

3.1.13	Туре	of Li	st c	f HEMM		<del></del>	·	
	Equipment/ The position of major auxiliary & mining and transport							
	equipment existing at the project as on 01.04.2022 vis-à-vis						2 vis-à-vis	
	HEMM proposed sanctioned provision as per approved option of EPR is given							
	below:						_	
			SI No	немм	SIZE/ CAP.	EXISTING AS ON 01.04.22	AS PER APPROVED OPTION OF EPR	Proposed In Mining Plan
						<u> </u>	(8 Mtpa)	
			A. C	B REMOVAL		· · · · · · · · · · · · · · · · · · ·		
			1	Electric Rope Shovel	20m³	-		
			2	Diesel Hyd. Backhoe	10-12m³	-		
			3	Rear Dumper	190-210T	-		
			4	Rear Dumper	100T	-	Outsourcing	Outsourcing
			5	RBH Drill (Electric)	250mm	-		
		) <del> </del>	6	Dozer	850 HP	-		
	1		7	Dozer	410 HP	-		
			B. C	OAL WINNING				
			1	Diesel Hyd. Shovel	10-12m³	1	2	2
			2	Diesel Hyd. Backhoe	10-12m <sup>3</sup>	1	1	1
			3	Rear Dumper	85T	-	-	-
			4	Rear Dumper	100T	21	20	20
			5	RBH Drill (Diesel)	160mm	4	6	6
			6	Dozer	410 HP	4	3	3
			C. C	OMMON				
			1	FE Loader*	5.74/6.4m <sup>3</sup>	1	11	1
			2	FE Loader*	10-12m <sup>3</sup>	ļ <u>-</u>	1	1
			3	Motor Grader	280 HP	4	4	4
			4	Hyd. Backhoe	2.8/3.5 m <sup>3</sup>	1	2	2
			5	Mobile Crane	30-50T	1	2	2
			6	Mobile Crane	8-10T	1	5	5
			7	Wheel Dozer/Dozer	410 HP	1	1	1
			D. I	RECLAMATION				
			1	Dozer	410 HP	-	5	5
			2	Motor Grader	280 HP	<u>.</u>	3	3
			3	Water Sprinkler	28 KL	4	2	2
			4	Water Sprinkler	70KL	-	2	2
		-	5	Road Sweeping Machine	-	-	1	1
1			6	Mist SprayGun		-	2	2
				SprayGun	<u> </u>		.1	
1	1							

CHAPTER 4
SAFETY MANAGEMENT

	Parameters	Details	
4.1	Safety Management		
4.1.1	Important safety	Safety of men and machine deployed in the mining	
	aspects:	area should be properly taken care of irrespective	
	,	of whether the mining activities are performed by	
		departmental or by outsourcing means.	
		All the the statutory provisions laid down in The	
ļ	le .	Mines Act 1952, Coal Mine Regulation 2017 and	
		specific permission from DGMS relating to mining	
		in general and opencast mining in particular have	
		to be adhered to and implemented in order to	
		maintain day to day safety.	
		1) SAFETY ASPECTS FOR OF HEMM /	
		EQUIPMENT	
		Special precaution should be taken while deploying	
		workers in the mine. Before employing any person	
	•	to the mine proper vocation training should be	
		imparted and recommendations of various Safety	
		Conferences should be strictly followed. Some of	
		the major aspects are as follows:-	
		A) For persons:	
		i) No persons shall be deployed unless he is trained	
		at VTC and holds VTC Certificates. A record of the	
		same shall be maintained.	
		ii) Records in Form-B and Form-D shall be	
		maintained.	
		iii) Records of driving license of operators shall be	
		kept by competent authority and shall be made	
	į	readily available for inspection by management.	
		, at an analytic interpretation by management.	

com	dequate supervision shall be maintained by petent persons, including officials and nicians.
tech	·
	nicians.
B) F	
	or Machineries: Provisions of Regulation 109,
110,	216 & 217 of CMR 2017 and DGMS Cir.
(Tec	h.) 1 of 1999 should be strictly adhered to
alon	g with the following:
i) All	machinery and plant used in connection with
work	ing of a mine shall be of good design, sound
cons	struction, and suitable material, adequate
strei	ngth, free from patent defect and properly
mair	ntained.
ii) T	he owner, agent and manager shall provide
ade	quate training facilities and ensure proper
train	ing of persons employed for operation and
mair	ntenance of machinery and plant.
iii)	No person except an engineer or other
com	petent person under his supervision shall
unde	ertake any work on machinery and plant in
whic	h technical knowledge or experience is
requ	ired.
iv)	All the machineries to be deployed in mines
shall	l be so designed as to afford the operator clear
and	uninterrupted vision all around.
1 1	Every heavy earth moving machineries,
incli	iding trucks and tippers, used in mine shall be
fitte	d with adequate safety features or devices as
spe	cified by DGMS. All equipment shall be
prov	rided with audio-visual alarms, proper light for
use	at night and fitted with suitable type of the fire
1 1	nguishers.
I	Fruck mounted drill machines designed for tube
well	drilling for sources of water shall not be used

Details
and only proper type of blast hole drill machine,
· especially designed for mining purpose, shall be
used in the mine.
vii) Every heavy earth moving machinery shall be
under the charge of a competent person (Operator
or Driver), authorized in writing by the Manager.
viii) All persons employed or to be employed to
operate heavy earth moving machinery shall be
trained and their competency shall be evaluated by
a Board constituted by the management, who shall
be persons who are not connected with imparting
of training.
ix) A proper record of repair and maintenance
along with inspection done by competent authority
and defect pointed out shall be maintained and
signed by authorized person.
x) Only such fitters or mechanics possessing
driver's or operator's license, shall be allowed to
carry out test-run of heavy earth moving
machineries.
xi) No person other than the operator or the driver
or any person so authorised in writing by the
manager shall be allowed to ride on a heavy earth
moving machinery
C) General:
i) Every person shall strictly adhere to the
provisions of the Act and of the rules and
regulations and to any order or direction issued by
the manager or an official with a view to the safety
or convenience of persons not being inconsistent
with the Act, rules and these regulations; nor shall
I .
he neglect or refuse to obey such orders or

Parameters	Details
	ii) Every person shall, immediately before
	proceeding to work and immediately after
	terminating work at the end of his shift have his
	name recorded in the appropriate register.
	iii) Risk Management Plan of tipper/pay loader
	shall be made and implemented.
	iv) All operators/drivers so authorised by the
	Manager shall observe the Regulation 62 and 63 of
	CMR 2017 and obey the systematic traffics rules
	prepared by management
	v) Before deploying workers they must be trained
	and briefed about safety aspects in opencast
	mine. However during course of execution of the
	work, if any accident occurs whether major or
	minor, the matter shall have to be immediately
	informed to mine management i.e. Colliery
	Manager/Agent/GM of Area so that Notices of
	accidents in a accordance of (Reg. 8 of CMR 2017)
	and Section 23 of The Mines Act 1952 may be
	given and other necessary steps may be taken in
	accordance with the Mines Act 1952.
	vi) Mine authority shall operate transport system in
	such a way so as to minimize pollution in the mine.
	2) STABILITY OF BENCHES, QUARRY
	HIGHWALLS AND SPOIL DUMPS
	During quarry operations, it is necessary to adopt
	required mining parameters for the stability of
	benches, highwalls and spoil dumps. It is also
	mandatory to examine systematically the fencing of
	mine workings, landslides and cracks between
	benches. It is required to maintain well-graded and
	wide roads on benches keeping the width of

Parameters	Details
	working areas sufficient for spreading of blasted rock and movement of the mining and transport equipment.
	During actual mining operation, systematic observations of the condition of benches, high wall slopes and spoil dumps should be carried out and the dimensions be modified if necessary to suit the local conditions. To ascertain the optimum slope angles for stability of quarry benches, highwalls and spoil dumps, scientific study of slope stability along with hydro-geological study of the area needs to under taken.
	During actual mining operation, systematic observations of the condition of benches, high wall slopes and spoil dumps should be carried out and the dimensions be modified if necessary to suit the local conditions.
	Provisions laid down in Reg. 106 and 108 of the Coal Mines regulation 2017 shall be strictly adhered to for the safety of quarry and OB/ spoil dumps. In addition to this, the following precaution should be considered:
	i) The spoil dump height should not exceed 90m from immediate surface level with an overall slope of 28° or less. In case dump height exceeds 90m height scientific study should be done ascertaining stability of dump before actual dumping operation. In the event of encountering steep floor gradient, floor blasting should be done and the area properly levelled by dozer before spoil dumping. In the event of encountering steep floor gradient, floor blasting

Parameters	Details
	should be done and the area properly levelled by
	dozer before spoil dumping.
	ii) No working or construction should be allowed
	within the 60m toe of the OB dump.
	iii) Before dumping the OB on the floor of seam, at least 10m length all along the strike length should be made horizontal at every 50 meter by floor dinting/blasting.
	iv) Dump should be created in such a way that there is no chance of accumulation of water in and around the base of dump as it will adversely affect the shear strength of the base material of dump. It must be ensured that there is no stagnant water at the toe of dump and the top of the dump.
	v) The toe and face of the dump should not be eroded or cut at any point of time to avoid slope failure. A suitable toe wall should be created along the dump periphery.
	vi) Formation of dumping should be done in square or circular or any regular shape as far as possible.
	vii) Proper drainage system should be provided to bring down rain water by construction of inclined drain on dump face and catch drain on all benches.
	viii) During active period of dump, all rain water should be diverted away from mining site as far as possible.
	ix) Sump and pumping capacity should be sufficient to accommodate peak surface run-off and seepage of water.

Parameters	Details
	x) Gabion wall and garland drain should be
	constructed and maintained to trap the surface run-
	off and sludge coming from dump.
	xi) Plantation and grassing should be done on top
	and slope of the dump respectively.
	xii) Regular monitoring is required for development
	of tension crack, gullies, movement of soil mass,
	stagnation of water and any other unusual
	occurrence. In case of dump movement, rate of
	movement of dump should be monitored. Special
	attention should be given at curve area/turning
	area of the dump.
	3) PRECAUTIONS AGAINST DANGER OF
	INUNDATION FROM SURFACE WATER
	i) Adequate protection against any danger of inrush
	of surface water into the mine or part shall be
	provided and maintained to the satisfaction of
	DGMS, whose decision shall be final.
	ii) The entrance into the mine shall be so designed,
	constructed and maintained that its lowest point
	(which means the point at which a body of rising
	water on surface can enter the mine) shall be not
	less than 3.0 meters above the highest flood level
	at that point.
	iii) Every year, during the rains constant watch shall
	be kept on the flood levels on the surface of the
	mine and if at any time the levels cross the highest
	levels earlier recorded, such levels shall be marked
	by permanent posts along the edges of water and
	the new highest levels thus observed shall be

Parameters	Details
	recorded with the date as the highest flood level on
	the plans by an actual survey.
	iv) If water dams or reservoirs are built across
	rivers and water courses on the upstream side of
	the mine, arrangements shall be made for
	communication between appropriate authorities for
	the purpose of ascertaining the quantity and timing
	of water released from the dams which is likely to
	endanger safety of the mine and arrangement for
	similar communication shall be made when water
	level rises on the upstream side which is likely to
	endanger the mine.
	v) The highest flood levels and danger levels at
	least 1.2 meters below the highest flood level, shall
	be permanently marked at appropriate places on
	the surface and whenever water rises towards the
	danger level at any place, all persons shall be
	withdrawn from the mine sufficiently in advance
	and for this purpose adequate arrangements of
	quick communication to all parts of the mine by
	effective systems shall be provided and
	maintained.
	vi) No working shall be made in the mine at any
	spot lying within a horizontal distance of 15 meters
	from either bank of a river or nala.
	vii) A competent person shall, once at least in every
	fourteen days during the rainy season and once at
	least in every thirty days during other periods of the
	year, examine every protective measure provided
	under regulations 149, whether in use or not, for
	their stability, and a report of every such
	examination shall be recorded. The protective
	measures and workings shall also be inspected,

Parameters	Details
	once at least in every quarter by the Manager
	personally.
,	viii) A careful assessment is to be made against the
	danger from surface water before the onset of rainy
	season. The necessary precautions should be
	clearly laid down and implemented. A garland drain
	needs to be provided to drain away the surface
	rainwaterfrom coming into the mine.
	ix) An embankment, 3.0m above the HFL, along
	the Bokaro River and Naktinala should be made.
	Inspections for any accumulation of rainwater,
	obstruction in normal drainage and weakening in
	the embankment should be made.
	x) Standing order for withdrawal of working
	persons in case of apprehended danger. During
	heavy rain inspection of vulnerable points is
	essential. In case of any danger persons are to be
	withdrawn to safer places.
	4) PROTECTION OF EQUIPMENT DEPLOYED
	AT BOTTOM HORIZONS FROM FLOODING:
	During the heavy monsoon period, the mining
	operation in the lower-most bench may have to be
	stopped. Therefore, it is proposed to drown the
	lower-most bench, which would work as a sump.
	The water will be pumped out and discharged into
	the nearby nala/ river after proper sedimentation.
	For ensuring safety of the equipment while working
	out bottom horizons with no access to surface
	profile, the following measures should be taken:

Parameters	Details
	i) Drivage of initial trenches if any and coal cutting
	on bottom benches should be done during the dry
	period of the year.
	ii) Ramps should be made for quick shifting of
	equipment from bottom horizons, liable to be
	flooded during monsoon period, to the top
	horizons.
	5) PREVENTION OF ELECTRIC SHOCKS:
	During mining operations, all the statutory
	provisions of the Indian Electricity Rules 1956, and
	Indian Standards for installation and maintenance
	of electrical equipment etc. should be observed.
	i) For protection from electric shocks to persons, all
	electrical equipment with voltage up to 1000V
	should be provided with Earth Leakage Relay,
	which will automatically disconnect electrical
	circuits.
	ii) Closed mobile substations and switchgears
	should be mechanically interlocked which exclude
	the possibility of opening the door when oil switch
	and air circuit breakers are in operation.
	iii) All metal parts of electrical equipment should be
	properly earthed to avoid failure of insulation.
	iv) All H.T lines and cables located within the
	blasting zones should be disconnected during
	charging & blasting operations.
	6) DUST SUPPRESSION & DILUTION OF
	EXHAUST FUMES:
	For any action against dust Doculation 143, 144
	For precaution against dust, Regulation 143, 144 and 145 of CMR 2017 should be observed. Beside
	this the following measures should be adopted for

}	Parameters	Details
		dust suppression at all quarry working places,
		dumps, haul roads, CHP and near other auxiliary
}		mining operations.
		i) Spraying with water on all working faces & haul
		roads, by special spraying machines or water-
		sprinkler.
		ii) While drilling holes, it is necessary to use dust
		extraction devices.
		iii) Installation of local dust suppression and air
		conditioning devices in cabins of excavators and
		drilling rigs may be considered.
		iv) Leveling of spoil dump surface.
		v) Separate dust suppression arrangement should
		be provided for CHP.
		To prevent collection of harmful mixtures in the
		atmosphere, from the different sections of quarry
		workings, it is recommended:-
		To spread out the sources of dust formation and
		omission of harmful gases throughout the working
		area of the quarry, the following precautions should
		be taken:
		i) Drilling & blasting operations should be timed for
		periods of maximum wind activity during the day.
		ii) Dumpers may be provided with purifiers for
		exhaust gases.
		7) MEASURES TO BE TAKEN FOR FIRE
:		FIGHTING AND FIRE PREVENTION:
		In addition to statutory provisions as laid down in
		Reg 135, 139 and 140 of CMR 2017, the measures
		for firefighting and prevention of fires are as
		follows:

Parameters	Details
	i) Organisation of special cell for systematic
	observations to examine and prevent fire.
	ii) Removal of spillage of coal on benches and
	cleaning of coal horizons to prevent cases of coal
	heating.
	iii) Storage of lubricants and cotton waste in
	enclosed fireproof containers in working places.
	iv) Provision of fire extinguishers.
	8) MEASURES TO BE TAKEN WHILE WORKING
	ABOVE UNDERGROUND GALLERIES:
	In addition to provisions laid down in DGMS
	Circulars (Tech. 2 & 3 of 1980, Tech. 11/1979), the
	additional measures for extracting pillars by
	opencast method are as follows:
	i) Quarry shall be worked by Heavy Earth Moving
	Machinery only. No manual operation in the quarry will be done.
	ii) HEMMs, except drilling machines shall not be
	deployed on the bench where thickness of coal or
	overburden above the UG galleries, as proved by
	advance boreholes or other suitable methods, is
	less than 6m.
	iii) Exposed coal faces (including UG galleries shall
	be kept covered with fine grained incombustible
	OB material to prevent breathing of air and control
	fire to dip side working. This cover shall be
	removed only at the time of coal extraction.
	iv) Overburden containing carbonaceous material
	shall not be dumped within 30m of the exposed
	side of the coal benches. Hot overburden shall be
	quenched and cooled at dump sites.
	-

Parameters	Details
	v) No person shall be allowed at any place in the
	opencast working where the thickness of
	overburden and/or coal over any gallery is less
	than 1.5m.
	vi) Except for the purpose of inspection and support work no person shall be allowed in the underground mine beneath and within 200m of the opencast excavation. The person visiting UG will take all safety precautions for safe working.
	vii) Blasting in fire area
	No explosive other than slurry and emulsion explosive shall be used.
	Blasting shall be done with detonating fuse down the hole. Fresh drill holes should be tightly plugged at the mouth.
	Temperature inside the hole shall be measured by bi-metallic thermocouple heat sensor (before filling with water) and if the temperature exceeds 80°C in any hole, the hole will not be charged.
	All blast holes shall be kept filled with water. When any hole is traversed by cracks or fissures the hole shall not be charged unless it is lined with an asbestos pipe and the hole filled with water. In addition, bentonite should be used for sealing any cracks at the bottom of the hole.
	Detonating fuse shall not be laid on hot ground without taking suitable precautions.
	Charging and firing of holes in any one round shall be expeditiously completed and in any case within 2 hours.

Parameters	Details
	A parting of at least 2m between the bottom of a short hole and roof of underground gallery shall be left intact.
	Effective muffling of hot shot holes with old wire rope screens shall be done for prevention of flying hot fragments.
	No blasting shall be done in crushed or broken ground.
	No person shall be employed within 150m when blasting the heated material.
	The spacing of hole in the coal/OB benches lying immediately above the galleries shall be so adjusted that the holes do not lie immediately above the galleries in order to ensure that blast holes do not directly fire into the underground working.
	All holes in the coal/OB benches lying immediately above the galleries shall be charged with water impulses or with moist sand of at least 0.6m in length at the bottom of the hole.
	No person including a shot firer shall take shelter within 100m of the quarry opening. Such shelter shall be of an approved design.
	9) MEASURES TO BE TAKEN WHILE DRILLING BLASTING:
	Following measures should be taken during drilling and blasting operation in the quarry beside the statutory requirements:
	i) Drilling and Blasting in quarry should be done in accordance with the provisions of Mines Act, rules

Parameters	Details
Parameters	
	and regulations and based on the Standing Orders
	for the safe use of explosives.
	ii) Adequate safety measures have to be taken
	during blasting operation in the quarry so that
	men/machine is not affected.
	10) CONSERVATION
	Suitable measures should be taken to minimize
	coal loss during mining operations. Selective
	mining of in-seam dirt bands has been proposed. It
	is proposed not to dump any spoil material over
	coal bearing area, amenable for mining, at present
	or even at a future date.
	or even at a luture date.
	11) SCIENTIFIC STUDIES
	The slopes of the quarry and dumps have been
	proposed on the basis of experience in the
	adjoining areas. However, to ascertain optimum
	slope angles for stability of quarry batter and
	dumps a scientific study need be carried out. In
	case dump height exceeds 90m height scientific
	study should be done ascertaining stability of dump
	before actual dumping operation. In the event of
	encountering steep floor gradient, floor blasting
	i
	should be done and the area properly levelled by
	dozer before spoil dumping. Similarly, hydro-
	geological study of the area is to under taken as
	none is available at present. Studies should also be
	carried out to ascertain the pattern of surface
	drainage, the manner of diversion of water courses
	to other water courses away from the mining area
	and the dimension of diversion dams, garland
	drains and other protective structures to be
	constructed.

## CHAPTER 5 INFRASTRUCTURE FACILITIES

	Parameters	Details
5.1	Mine infrastructu re required e.g. Equipment maintenan ce planning, Office buildings, Workshop, Power Supply arrangeme nt, Water supply, etc.	Block-B OCP (3.5 Mtpa) is in operation since 23.03.2007. All infrastructure like Equipment maintenance planning, Office buildings, Workshop, Power supply arrangement, Water supply etc. are in place.  However, for EPR of Block-B OCP (8 Mtpa), additional infrastructure/ extension of existing infrastructure is proposed.  The overburden processing plant for generation of manufactured sand additionally involves installation of machinery over an area of 4 Ha.
5.2	Power supply & illumination	This project will receive power at 33kV by two single circuit overhead lines from 132/33kV Madhauli Substation of NCL.  At 8 Mtpa stage, 3 Nos. 10 MVA, 33/6.6kV (each) has been proposed for Option-II power supply arrangement of Block-B OCP.  The general area of the quarry would be illuminated by 2 x 150W LED lamps mounted on 15 m high fabricated tower installed all along the quarry workings and near substation.  The haul road would be illuminated by 120 W LED lamps mounted on poles all along the haul road. On each pole two fixtures would be installed to illuminate both sides of the pole.  Spoil dumps would be illuminated by 120 W LED flood lights installed on steel tubular poles.
5.3	Drainage & Pumping:	The planning of de-watering of the mine has been done in such a way that as far as possible the working faces and haul roads remain dry. The layout of the quarry provides suitable

	Parameters	Details							
	Assessme	gradient along the quarry floors and the benches to facilitate							
	nt of	self-drainage of water to the lowest level of the quarry.							
	volume of	Two sumps are proposed for collecting the rain as well as							
	water for	strata water inflow into the quarry workings. The first sump							
	Pumping,	will be located near the fault F5-F5 between Vindhya I and							
İ	Pumping	Vindhya II sections. The second sump will be located centrally							
	Capacity	in the dip –most side of Gorbi-B & C sub-blocks.							
		Capacity of sump has been decided to accommodate rain							
		water corresponding to maximum daily rainfall.							
	•	Total make of water: 6440150 m³ (Gorbi B&C) and 198045 m³							
		(Vindhya I&II)							
		Above volume of water will be dewatered in 5 days at the rate							
		of 20 hours pumping per day.							
		Total pumping capacity per hour : 8382 m³ (For B&C, I&II)							
		Drainage of Water on Surface							
		Fresh garland drains shall be made before every monsoon at							
ļ		the peripherally of active edge of the quarry to prevent							
		thesurface rain water to enter the quarry.							
		A sedimentation pond/ lagoon shall be made between the							
		qualties and mine water will be discharged into it. After							
		sedimentation of su spended particles, the fresh water will be							
		discharged in to river/nallah.							
	Coal	A Coal Handling Plant for 8.0 Mtpa coal production has been							
	Handling	envisaged in Expansion Recast EPR for Block-B Opencast							
	Arrangeme	Project. The Coal Handling Plant shall receive ROM coal from							
1	nt: Brief	Rear discharge dumper, crush the coal to (-) 100 mm size by							
5.4	detail of	Gyratory crusher and secondary sizer, store and reclaim the							
	CHP/	coal from bunker and will be dispatched by existing Silo and							
	Mode of	loading on wagons through railway siding which is under							
	Dispatch,	construction. The ROM coal shall be crushed from (-) 1500							
	Coal	mm to (-) 250 mm size by primary crusher (semi-mobile							

	Parameters	Details						
	quality and	crushing plant) and further crushed to (-) 100 mm size by						
	coal	secondary twin shaft sizer and then it is stored in the ground						
	staking	bunker for further transport by railway wagon. The semi-						
	and	mobile crusher plant initially will be installed near the mouth						
	handling	of the mine in future this plant will be shifted in the face of the						
	arrangeme	mine as per requirement.						
	nt	The coal handling plant has been provided with facilities such as pollution control, proper communication, firefighting, water supply, rest room, office maintenance and repair room, lifting tools and tackles, approach road, proper drainage, automatic measuring and monitoring instruments etc.  Transportation of Sand: The segregated sand from OB will be despatched to the customers through tarpaulin covered trucks						
5.5	Coal washing and the proposed handling/ disposal of rejects.	NA						

## CHAPTER 6 LAND REQUIREMENT

	Parame	eters	Ī	Deta	ails																
6.1	LAND F	REQUIR	Εľ	MENT						****											
6.1.1	Total requirer	Land	ı	Brea soul	Break up of pre-mining land type (indicative) and source of data.																
	-			!	Land Type						Α	rea									
	the mine in													-		Agri	cultural				
	│"Ha"		Ì			Tow	nship			İ											
					Grazing																
				Ten	ancy		Barr	en			52	6.50									
	}		١				Wat	er Bodi	es												
•							Roa	d													
							Com	munity	/ other u	ise											
	]						Agric	cultural			64:	3.41									
					t Non		Tow	nship													
	ĺ			Fore	est		Graz	ing													
							Barr	en/ othe	eruse												
			ļ				Rese	erve			586.86										
	:		1	Fore	est		Protected														
	f			Free	hold							-									
				Land	d in		Fore	st	••••		4	47									
·	į.			phys poss	sical session		Non-	Forest			1083.96										
				7	- Total	$\top$	-					6.77									
			'	·						<u> </u>											
6.1.2	Land Use	During i	Vlir	ning																	
		Land	L,	.and				Land Use	(Post Clo	osure)											
	Туре	use (Propos ed)	(E	Use ind of Life)	Agricul tural land		lant tion	Water Body	Public/ Compa ny Use	Forest Land (Retur ned)	Undist urbe d	Total									
	Excavati on Area	709.57																			
•	Backfille d Area		40	61.06		48	61.06					461.06									
	Excavate d Void		24	48.51				248.51				248.51									

Į		aramete	ers	Detai	ls						
		Without plantatio n								:	
		Top Soil Dump									
		External Dump	523.10	523.10		523.10					523.10
		Safety Zone	18.08	18.08	,					18.08	18.08
		Haul Road between quarries									
		Road diversion									
		Diversion / below River/Nal a/canal		:							
		Settling pond									
		Road & Infrastruc ture area	99.45	99.45				99,45			99.45
	:	Rationali zation area				_					
		Garland drains									
		Embank ment									
		Green Belt	402.57	402.57						402.57	402.57
	1	Water Reservoi r near pit									
		UG entry									
		Undistur bed/ Mining right for UG					•				
		Resettm ent			_						
		Sand segration plant Area	4.0	4,0			_	4.0			4.0
		Water harvestin g									
	lΓ	Agricultur al land									
		Total	1756.77	1756.77	0.00	984.16	248.51	103.45	0.00	420.65	1756.77

	Parameters	Details
6.1.3	Surface	Coal Mine and infrastructure.
	features over	
	the block area	
6.1.4	No. of villages/	207 PAFs have to be rehabilitated.
	Houses to be	
	shifted	
6.1.5	Population to	
	be affected by	
	the project	
6.1.6	Proposed	R&R Programme as per CIL Policy.
	Rehabilitation	
	programme	

## CHAPTER 7 ENVIRONMENTAL MANAGEMENT

## CHAPTER 8 PROGRESSIVE & FINAL MINE CLOSURE PLAN

	Pa	ramete	rs			<i>E</i>	)etails						
8.1	Land De	gradati	ion and i	restora	tion Sc.	hedule							
8.1.1	Tentative Land Degradation and Technical Reclamation (Commutative Area "Ha")												
		La	and Degrade	ed Area in	T	echnically	Reclaimed .	Area					
	Year/Sta ge	Excav	Dump (Extn + Top Soil)	Infra/ othes	Total	Backfill	Dump (Extn Top So	+ Others	Total				
	Up to Base year (01.04.22)	307.69	289.76	120.46	717.91	166.46	106.88	3	273.34				
	Y-1	352.00	380,00	120.46	852.46	166.46	206.8	3	373.34				
	Y-3	433,36	523.10	120,46	1076.92	166.46	349.98	3	516.44				
	Y-5	479.45	523.10	120.46	1123.01	215.00	523.10	)	738.10				
	Y-10	623,28	523.10	120.46	1266.84	368.79	523.10	)	891.89				
	Y-13	700 57	502.40	400.40	1353.13	461.06	523.10		984.16				
	11 1212 1	709.57	523.10	120.46	1000.10	401.00	023.10	<u>,                                    </u>	304.10				
	Post Closure	709.57	523.10	120.46	1353.13	461.06	523.10		984.16				
8.1.2	Post	709.57 Biolog	523.10	120.46 amatior	1353.13 (Cumu	461.06	523.10		i				
8.1.2	Post Closure  Tentative	709.57 Biolog	523.10 ical Recla	120.46 amatior	1353.13 (Cumu	461.06	523.10		i				
8.1.2	Post Closure  Tentative  Year/ Stage  (Life of the mine plus post closure	709.57  Biologi  E  Agricult	523.10  ical Recla  Biologically I	120.46 amation	1353.13  (Cumu  Area in H	461.06 lative in	"Ha")  Forest land Return	UnDisturb- ed / To be left for Public/ company	984.16				
8.1.2	Post Closure  Year/ Stage  (Life of the mine plus post closure period)  Up to Base year	709.57  Biologi  E  Agricult	523.10  ical Recla  Biologically I	120.46 amation	1353.13  (Cumu  Area in H  Plain Area	461.06 lative in	"Ha")  Forest land Return	UnDisturbed / To be left for Public/ company Use	984.16				
8.1.2	Post Closure  Year/ Stage  (Life of the mine plus post closure period)  Up to Base year 01.04.22	709.57  Biologi  E  Agricult	523.10  ical Recla Biologically I  Plantati on  101.88	120.46 amation	1353.13  (Cumu  Area in H  Plain Area  420.65  420.65	461.06 lative in a. Total 522.53 572.53 644.08	"Ha")  Forest land Return	UnDisturbed / To be left for Public/ company Use  103.45 103.45	984.16  Total  625.98  692.99  747.53				
8.1.2	Post Closure  Year/ Stage  (Life of the mine plus post closure period)  Up to Base year 01.04.22  Y-1  Y-3  Y-5	709.57  Biologi  E  Agricult	523.10  ical Recla  Biologically I  Plantati on  101.88  151.88  223.43  334.26	120.46 amation	1353.13  (Cumu  Area in H  Plain Area  420.65  420.65  420.65	461.06 lative in a. Total 522.53 572.53 644.08 754.91	"Ha")  Forest land Return	UnDisturbed / To be left for Public/ company Use  103.45 103.45 103.45	984.16  Total  625.98  747.53  858.36				
8.1.2	Post Closure  Year/ Stage  (Life of the mine plus post closure period)  Up to Base year 01.04.22  Y-1  Y-3	709.57  Biologi  E  Agricult	523.10  ical Recla Biologically I  Plantati on  101.88  151.88  223.43	120.46 amation	1353.13  (Cumu  Area in H  Plain Area  420.65  420.65	461.06 lative in a. Total 522.53 572.53 644.08	"Ha")  Forest land Return	UnDisturbed / To be left for Public/ company Use  103.45 103.45	984.16  Total  625.98  692.99  747.53				

	Paran	eters			Details							
8.2	Post Clos	Wat	Water quality monitoring will be carried out									
	Quality man	agem	ent:	qua	quarterly during the post closure stage, as							
				per	per the CPCB Norms and will be compared							
				with	the IS	10500:	2012	& 2015	. The	actual		
				end	use a	and trea	itmeni	t meas	ures,	if any		
						ill be de				-		
				1		nding u						
8.3	Post Clo	sure	Air		•	monito		-				
0.0				1		the life of	_					
	Quality man	ayem	GIIC		_				-			
				-		assess			or pre	pposed		
				1	•	the surro		_				
				-		ion of st				•		
				1		CC nor	ms a	nd pre	vailing	j local		
				facte	ors.				•			
				Air	pollu	tion c	ontrol	mea	sures	like		
				deve	elopme	nt of	greer	nbelt a	and a	avenue		
				plan	itation,	mobile v	vater	sprinklir	ng alor	ng haul		
				road	ds, fixe	d water	sprin	klers a	t stock	cyard,		
				Crus	shers, (	CHP will	l be d	eployed	i to mi	nimize		
				the i	the impact on surroundings.							
8.4	Waste Mana	igeme	nt (Fig	ures i	n Mm³)	(Tenta	tive)					
	Year/Stage	OB	Remova Mm <sup>3</sup>	ıl in		ernal Imp		ernal kfilling	Emba	nkment		
	(Life of the mine plus post closure period)	(C	umulativ	e)		ılative)		ulative)	(Cum	ulative)		
		Top Soil	ОВ	Total	Top Soil	ОВ	Top Soil	ОВ	Top Soil	ОВ		
	Up to Base year 01.04.22	0.37	222.42	222.79	0.37	150.41		72.02				
	Y-1	0.37	254.51	254.88	0.37	169.65		84.86		l'		
	Y-3	0.43	<del></del>	344.88	0.43	232.63		111.66				
	Y-5	0.55	444.33		0.55	289.64		153.76	<u> </u>			
	Y-10	0.85	663.32 687.46	_	0.85 1.09	380,44		279.78 299.16				
	Y-13 Post	1.09	<del>                                      </del>	688.55	1.09	386.44		299.16				
	Closure	1,08	007.40	000.00	1.05	1 000.77	1	1	1	<u> </u>		

	Pai	rameters	<b>S</b>		L	Details				
8.5	There is shortage of dump space for 80.23 Mm³ of OB, which will dumped in neighbouring mines.  Total Top soil to be generated is 1.09 Mm³, and this total volume of top will be utilized for concurrent biological reclamation of dumps and gr belt.  Top Soil Management — (Including Action plan for Top S management) (Tentative)  (All Figures are Cumulative and in Mr									
	Year/		1	(All FI	gures are Top Soil (		ative and i	1 1/(1119)		
	(Life of the mine plus post closure period)	Top Soil Rem oval Plan	Spreadin Over Embank ment	g Spreading over - Backfill area	Spreadin g over External OB Dump area	Used in Green Belt area & Safety Zone	Used in land Dismant- led	Total Utilised		
	Up to Base year 01.04.22	0.37			0.37			0.37		
	Y-1	0.37			0.37			0.37		
	Y-3	0.43			0.43	<u> </u>		0,43		
	Y-5	0.55			0.55	ļ		0.55		
	Y-10	0.85			0.85			0.85		
	Y-13 Post Closure	1.09			1.09			1.09 1.09		
	-	utilized		ated is 1.09 urrent biolog						
8.6	Managem Rejects.	ent of	Coal	No washer	y propose	ed.				
8.7	Restorati	on of	Land	It is prop	osed to	restore	land us	ed for		
	used for l	nfrastru	cture	infrastructu reclamation	•		and bio	ological		
8.8	Disposal	of I	/lining	Mining ma	chinery w	ill either	be surve	yed off		
	Machiner		-	or transfer	-			·		
				on the ba						

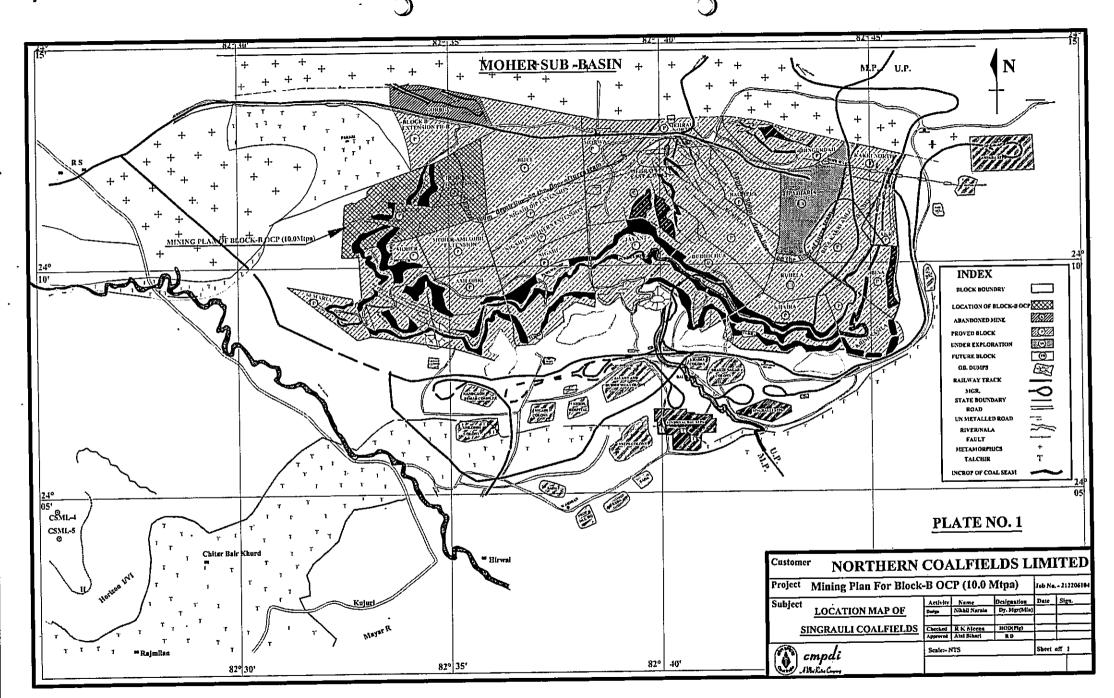
	Parameters		Details					
			disposa	al pla	an will	be subn	nitted in	Final Mine
	Safety & Security		closure plan at 8 <sup>th</sup> year of mine operation.					
8.9			Safety measures proposed during operation					
			and po	st cl	osure	stage ind	clude co	oncrete wall
			along mine boundary, toe wall/gabion wall					
			along OB dumps, fencing around water					
			bodies, garland drains etc. The measures to					
			taken up for safety and security have been					
			discussed in detail in Section 4.1					
8.10		nent Cost and I	inancia	l As	suran	се		
8.10.1		ment Cost:  Cost break-up for carrying out progressive and final mine						
	I .							
		tivities as per the	•					ased on the
	revised min	ne closure guide	lines of I	VIoC	is as	given be	low.	
	Head	Activities	<b>:</b>	U nit	Qua ntity	Rate Rs/unit	Amt.	Amount in lakhs
:		Water quality mana (ETP & STP etc oper cost	gement erating					
		Air quality manage Sprinkler,water tank other contro measu	ker and	LS				1273.19
		Waste management						
		Filling of void – Rehanding of Crown Dump						
	Top soil managen			LS				
	Progressive closure	Technical and Biological Reclamation of Mined out of land and OB Dump						11411.56
	•	Plantation over virg including green bell						
		Manpower Cost and supervision	d .					·
		Barbed wire fencing dump	g around					
		Barbed wire fencing the pit		LS				914.81
		Retaining wall/Toe around the Dump						
		Garland drain & Ca	tch drains					

Pa	rameters	Details				
	Garland drain around the Dump			1		
	Cleaning of garland drains and catch drains					-
	Dismantling of workshop	LS				
	Rehabilation of the dismantled facilities					
Dismantling of structure						
& Disposal /rehabilatio	Dismantling of stowing bunker			. "		801.64
n of Mining machinery	Dismantling of ug equipment					-
	Rearranging water pipe line to dump toppark/agricultural land	- - -				
	Dismantling of power lines					
	Filling of Void					
	Top soil management					
	OB Rehanding for backfilling					2518.09
Technical and Biological Reclamatio	Terracing, blanketing with soil and vegelation of Extermal OB Dump					
n of mined out land	Panpheral road, gates, view point, cemented steps on bank	LS				
	Expenditure on development of Agriculture land					
	Landscaping and Plantation	LS				895.95
	Power cost					
Post cost	Post Mining Water quality management					
manageme nt and	Post Mining Air quality management	LS				301.79
supervision	Subsidence monitoring					
	Waaste management					
	Manpower cost and supervision					
Others	Enterprenuership development ( vocational/skill development training for sustainable income of affected people	LS				141.47
	Golden handshake/Retrenchment benefits to 100 employees of OC	LS				603.59

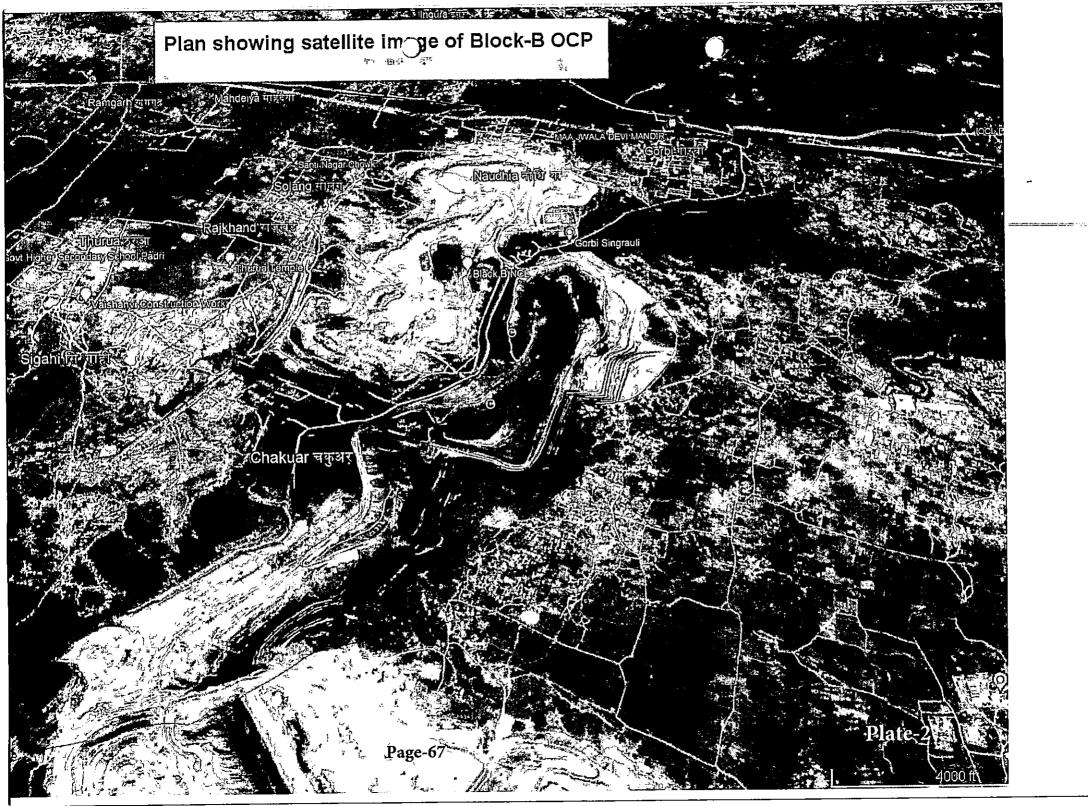
Parameters	Details			
 Onetime financial gr socities/institutions/c ons ehich is depend project	rganisati	·		
Provide jobs in other the company	mines of			
Continuation of othe services like running schools etc.				
Total		18862.08		

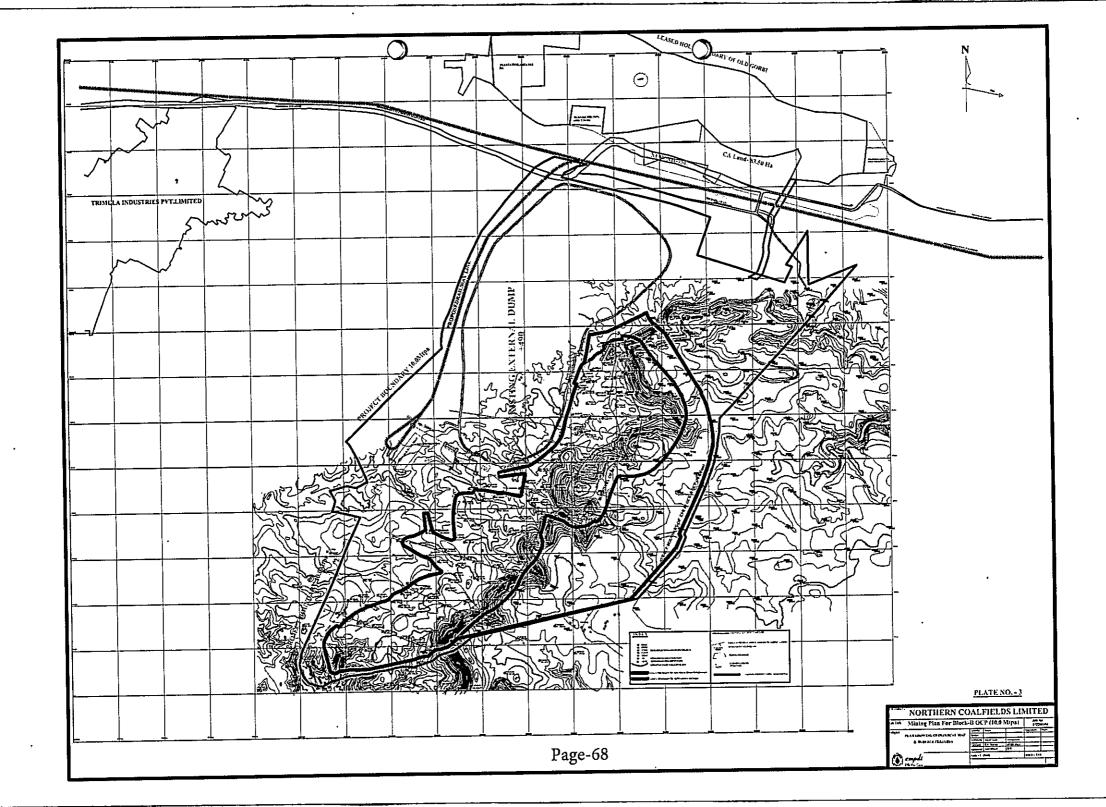
8.10.2 Financial Assurance: Amount to be deposited in Escrow account as a security against the mine activities to be carried out for the closure of the mine

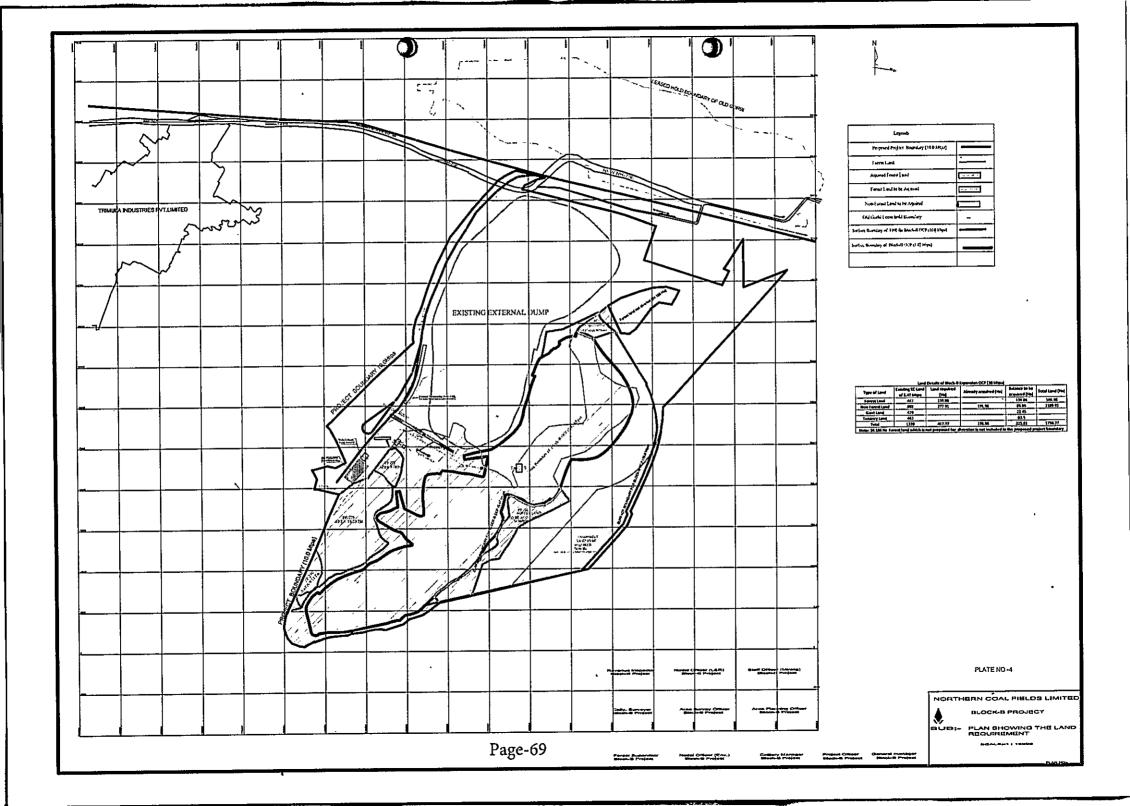
ESCROW ACCOUNT	
Block-B OCP	1
Project Area (Ha)	1756.77
Escrow Amount per Ha. For OC Project as on April, 2019 (lakhs/ Ha)	9
WPI as on April 2019	121.60
WPI as on Nov. 2022 (final)	152.50
Escrow Amount per Ha. For OC Project as on Nov. 2022 (lakhs/ Ha)	11.33
Current value of corpus as on November 2022	19904.2
Amount deposited as on 31.03.2022	6060,95
Balance Corpus for which provision is to be made	13843.25
Balance Life of mine	13
Annual corpus (Balance corpus / Balance life, in Rs. Lakh)	
Year	Amount in Lakh (Rs.)
. 1	1064.87
2	1118.11
3	1174.02
4	1232.72
5	1294.36
6	1359.08
7	1427.03
8	1498.38
9	1573.3
. 10	1651.97
11	1734.57
12	1821.3
13	1912.37
Total	18862.08
Total Mine closure cost (in Rs Lakhs)	

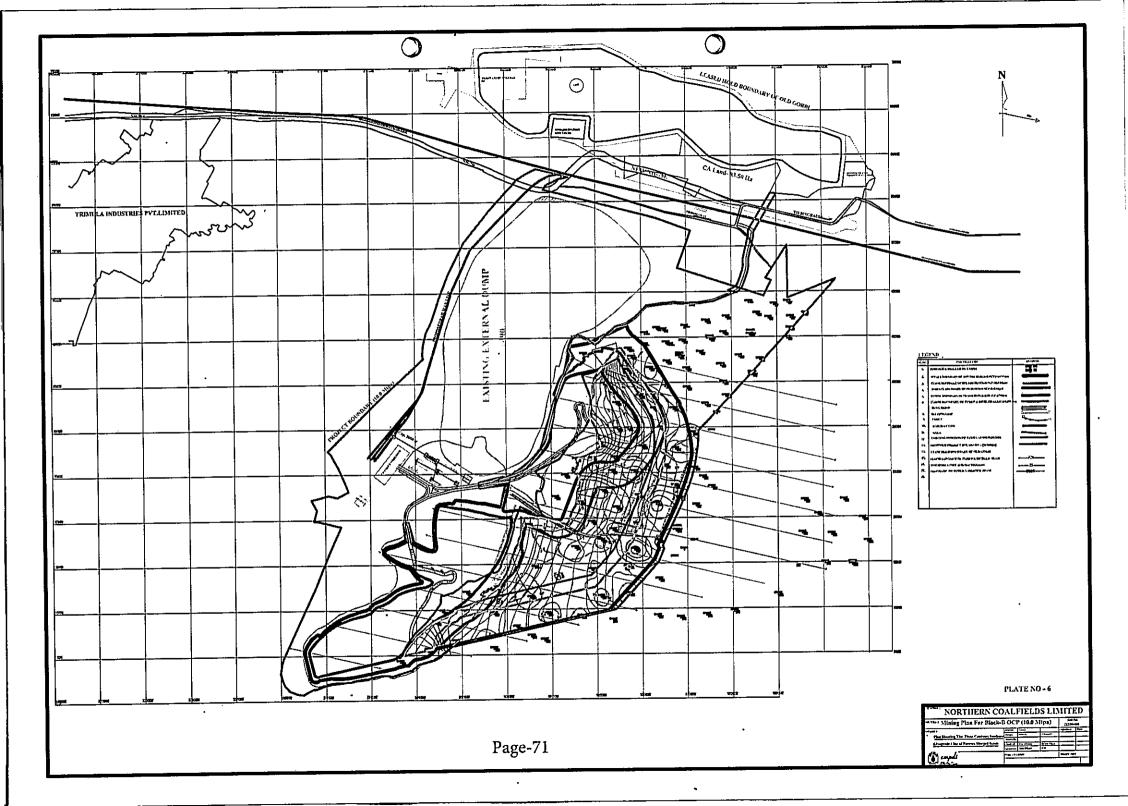


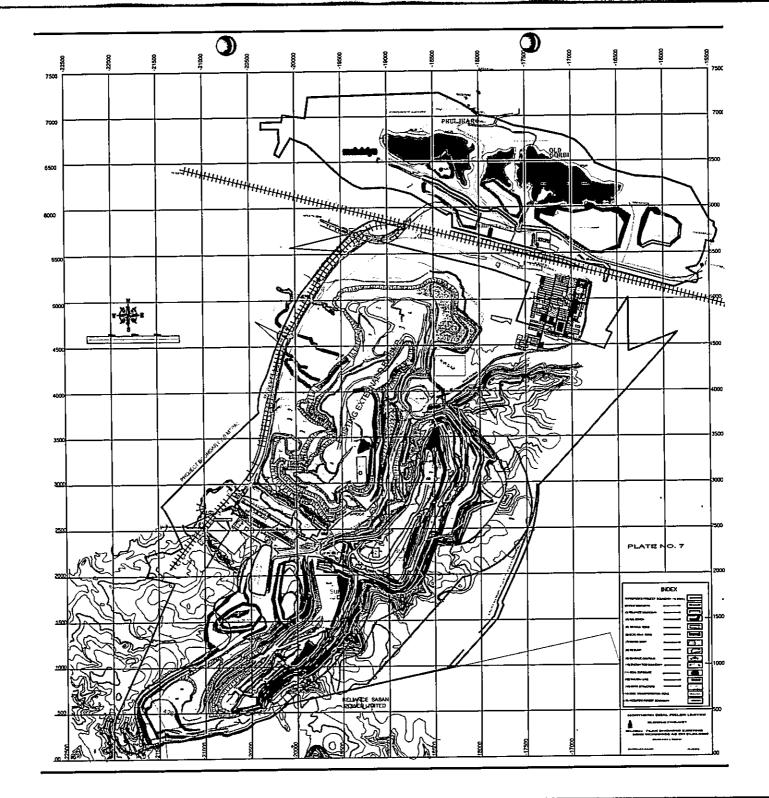
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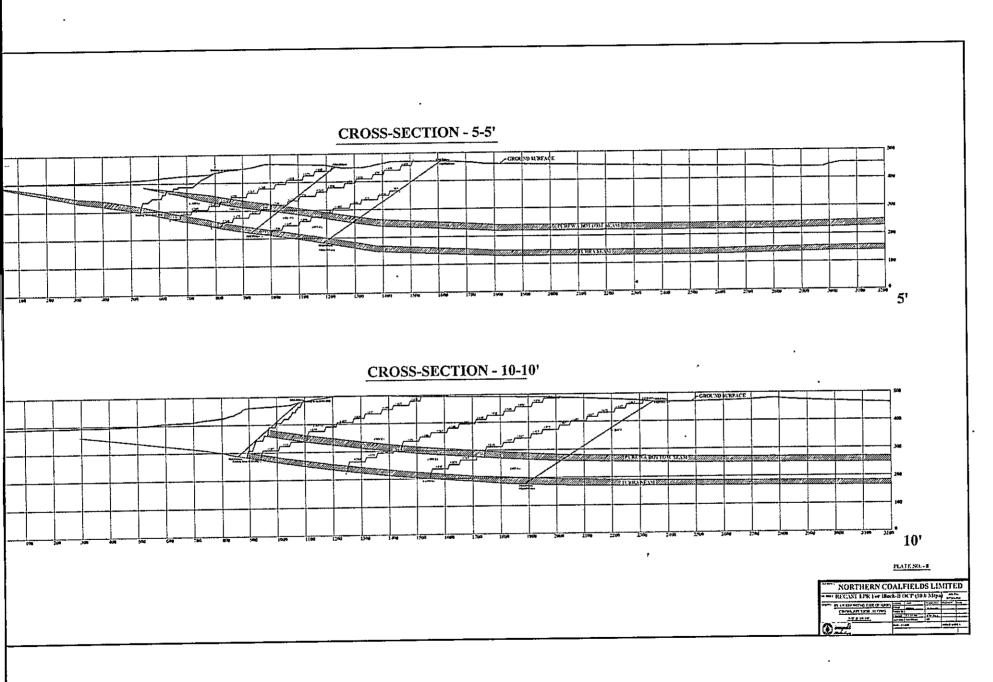


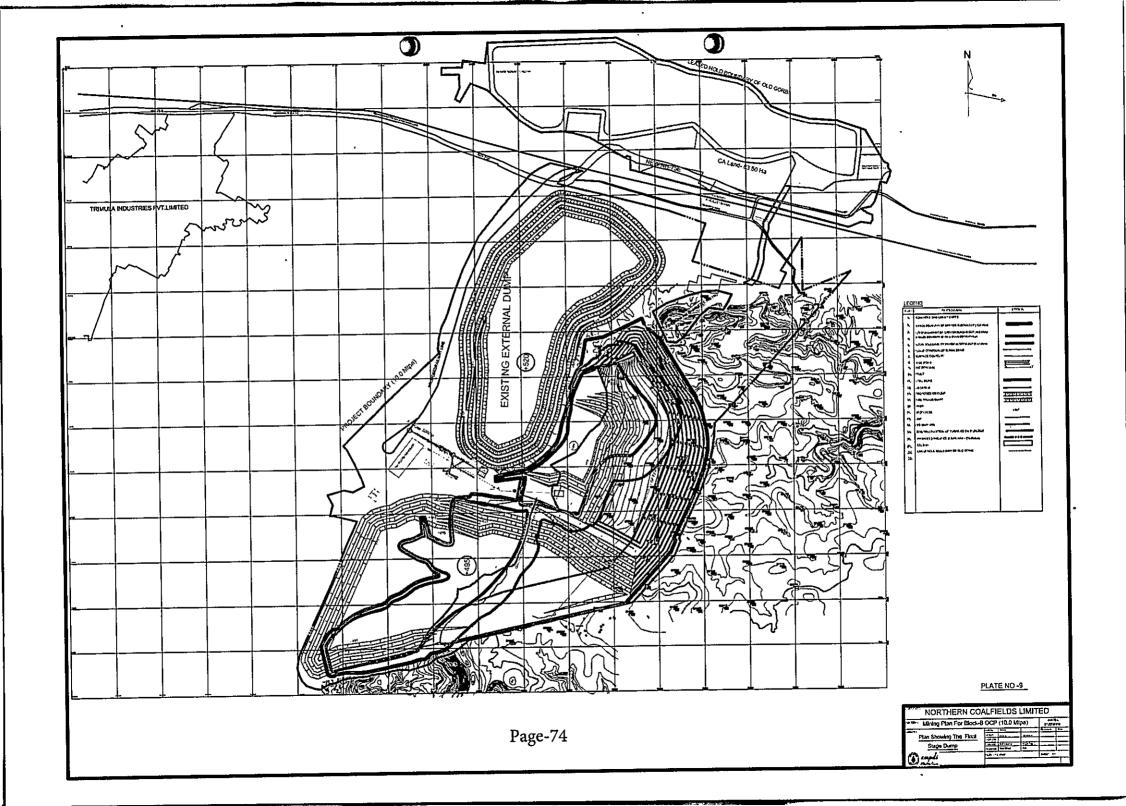


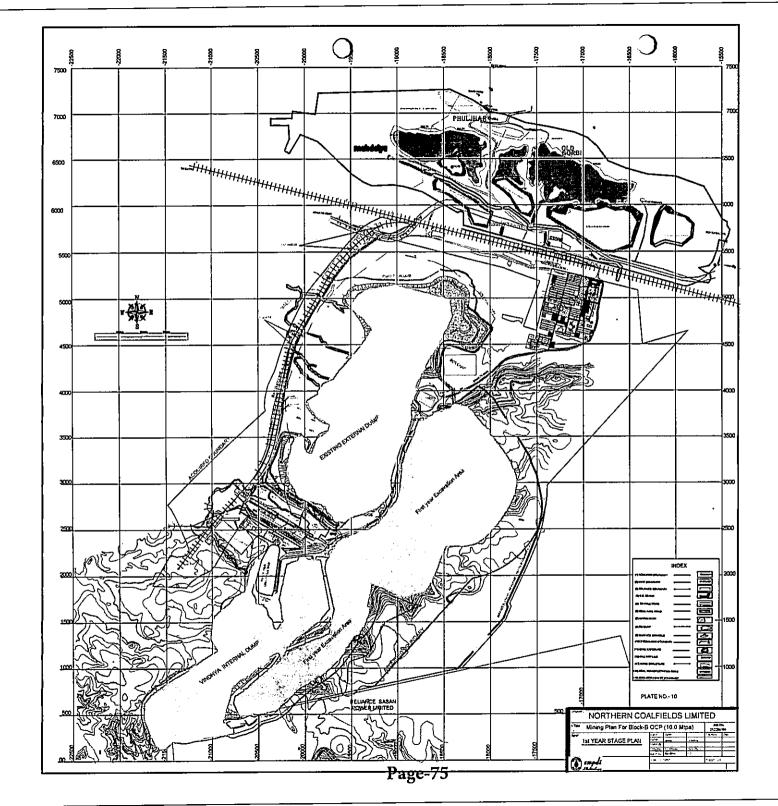




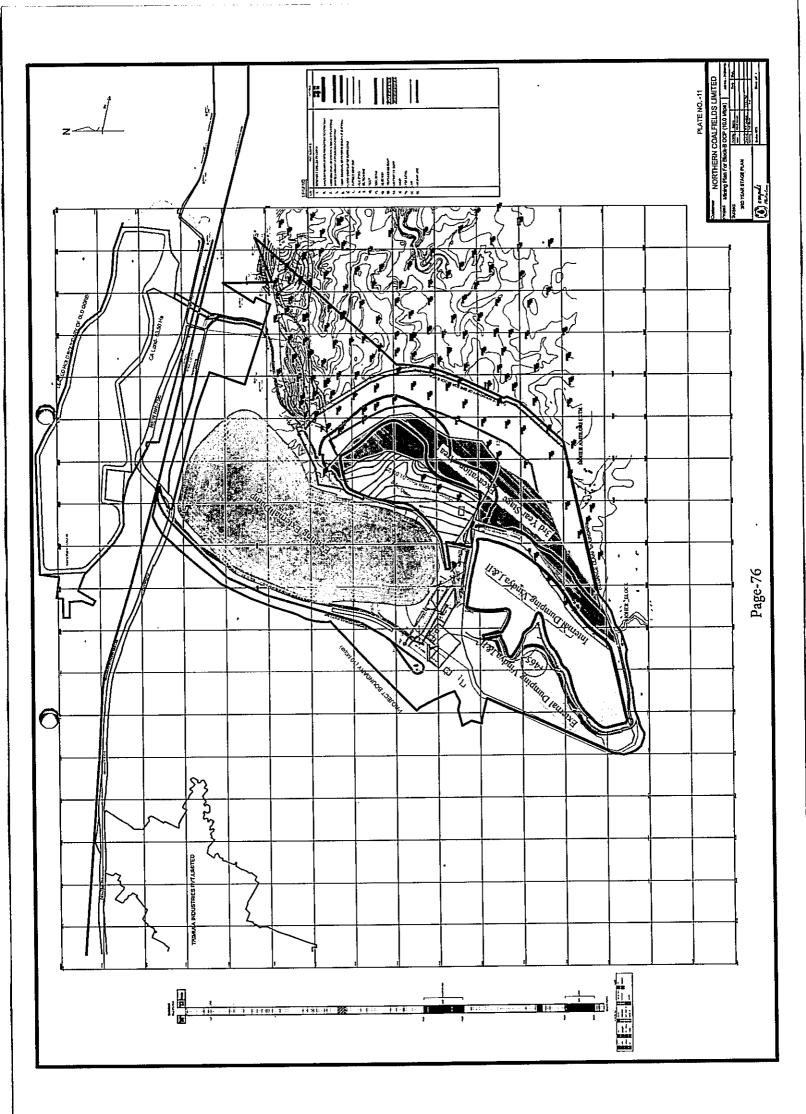


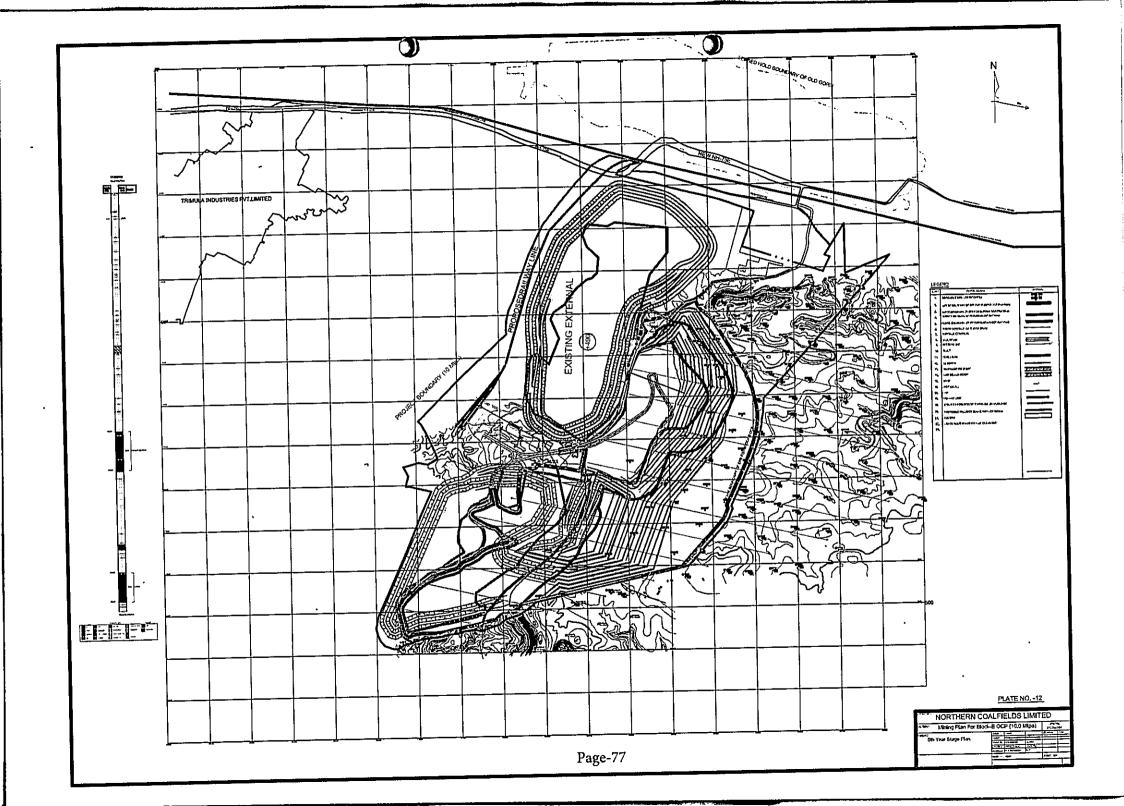


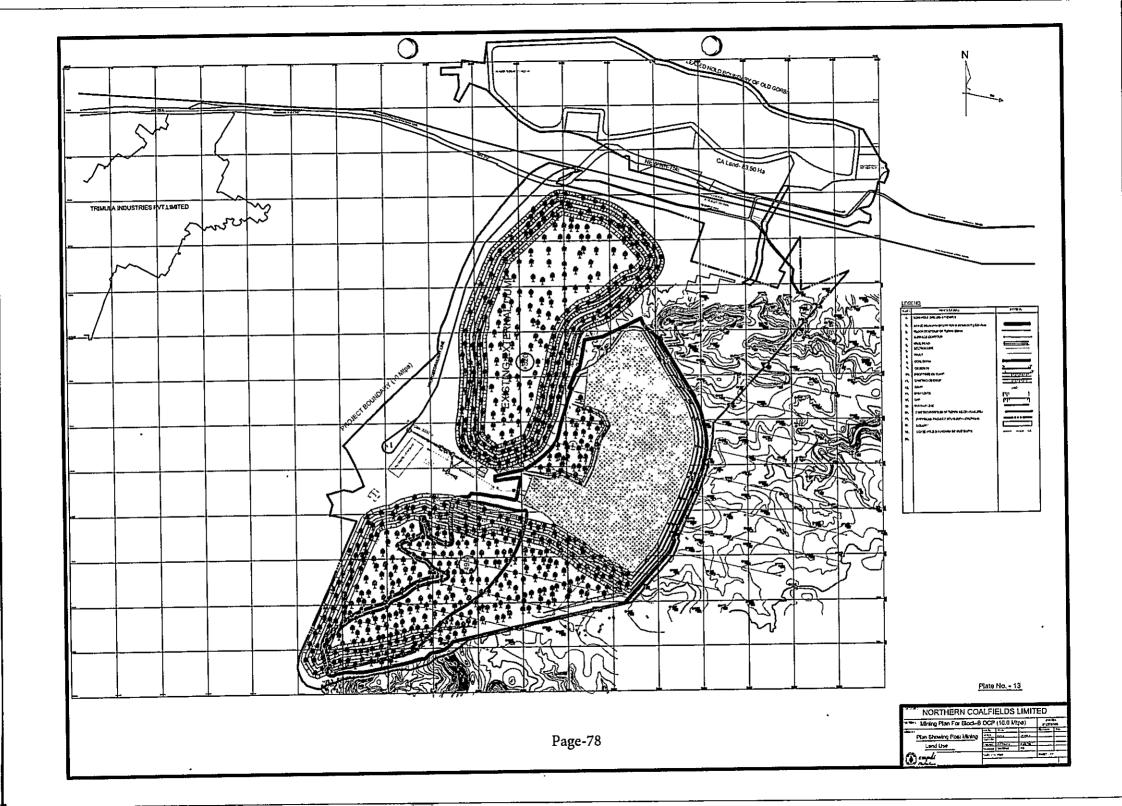




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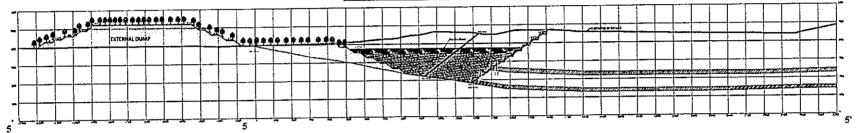




# POST MINING DUMP CROSS SECTIONS

### SHOWING DUMP PROFILE AT THE END OF MINING OPERATION

CROSS-SECTION - 5-5'



### SHOWING DUMP PROFILE AT THE END OF MINING OPERATION

**DUMP CROSS-SECTION - 11-11'** 

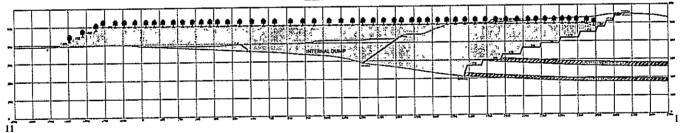


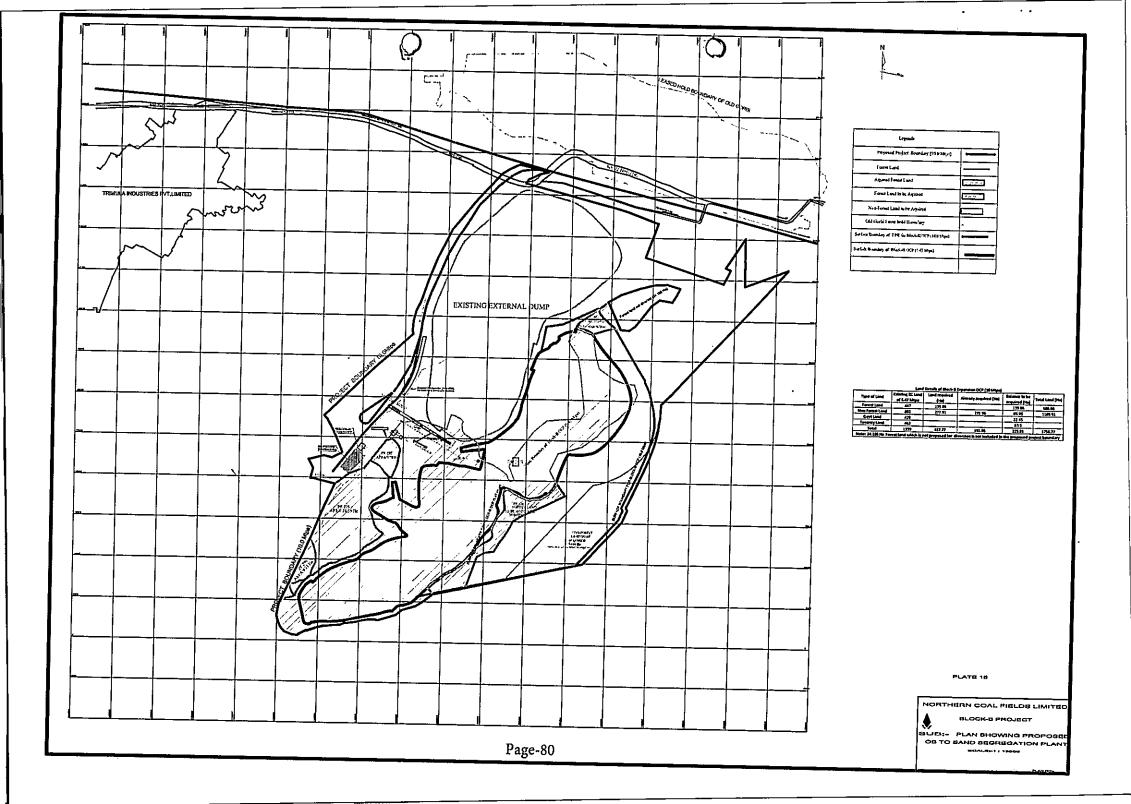
Plate-14

NORTHERN COALFIELDS LIMITED

Job Tide: Mining Plan For Block-B OCP (10.0 Mtpa)

Plan Showing Post Mining Dump Cross Sections

cmpdi



### Annexure-I

# PLAN /CHART SHOWING SCHEDULE OF IMPLEMENTATION OF MINE CLOSURE

S.N.	TYPE OF ACTIVITY	LIST OF ACITÝTIES	TIME FRAME (YEARS)					
	<u> </u>		1st	3rd	13th	PC1	PC2	I PC3
1	]	Environmental Monitoring (Air quality, Water quality,	-	4.		<u> </u>	1	100
	╛	Groundwater level and quality, Noise Quality)	1	1	l .	1	1	ĺ
2	ł	Filling of Void—Re-handling of crown dump	·	<del> </del>	-	<del>                                     </del>	+	
			1. 1.	ļ	1		1	ĺ
3	1	Construction and maintenance of Garland Drain around quarry		r	1129 8		1	
4	1	Construction and Maintenance of soil conservation measures	. 492	<u> </u>	<u> </u>			
	1	/OB dump & embankment strengthening measure	L"		9.7			1
5	PROGRE	Operation and Maintenance of Sedimentation Tank and	. a.		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		ļ	
	SSIVE	Workshop Effluent Treatment plant in the Project Area	∯ 25 26	•	10.5		1	
6	CLOSURE	Installation, Operation and Maintenance of dust suppression	HE AP				<del> </del>	
	j	measures	· 1940)	1	\$ #m.,			]
7		Landscaping and Plantation in OB Dump, plain land and on	or may be a		1		├	<del> </del>
	j	other arears within Project Area	428 A		ŧ			Į
8		Other Mitigative measures pertaining to Air & Water Pollution			- 1878 ·		<del>                                     </del>	<del> </del>
	1	control, Soil conservation & mitigation of Land degradation etc.	di,		-Ur			]
9		Entrepreneurship Development	- 14 t	· .	***		<del>                                     </del>	
10		Post Closure Environmental Monitoring			- ŝi	<del> </del>	d 11	
11		Dismantling of Industrial and Residential structures within					(%)	· · ·
12		project Area Stabilization and Blanketing of OB Dump with Green Cover						
		Cookside Statistics and Cookside Statistics of Cookside Statistics o	ēģ.		man it of	ere.	#4	. 19
13	ĺ	Grading of Highwall slopes				r#6	41 25	K1
14	· •	Construction and Maintenance of Garland Drain in and around			. r r	••	- 0. 1	· ''
		OB Dumps and of other soil conservation measures	14 h	, , ,	. 2	,+At	· 45	int to
15	·	Man power cost of supervision (Added with Power Cost)	<del></del>	- a -	Č., w	to the second		
		, , , , , , , , , , , , , , , , , , , ,	1		ļ:		1	
16		Entrepreneurship Development	7.7			P.		
	FINAL		. ,	à		' '	. 4	
17	CLOSURE	Plantation (On Plain Land, OB Dump, Land obtained after	7	9	7.94.2		<del></del>	
	Ĺ	dismantling and other areas) and Landscaping	पर 🎳			. *;		
18		Barbed Wire Fencing around the mine						
19	İ	Construction, Operation and Maintenance of Sedimentation	<del></del>	, 186 e.	97		*	<del></del>
	L	tank, And Healthent Flath in the Project Area	1 19		3	4		
20		Installation, Operation and Maintenance of dust suppression	, EH			14 J	- 1	
		measures	1 mm 1 mm		e de la		. ]	4.50
21		Other mitigative measures				1		• • •
			- 1	ľ	ď	÷' ;	Į,	ţa.

# No. J-11015/80/2013-IA.II (M) Government of India Ministry of Environment, Forests & Climate Change

Indira Paryavaran Bhawan, Jor Bagh Road New Delhi-110003 Dated: 06th August, 2014

To,
The General Manager (Environment),
M/s Northern Coalfields Ltd.,
PO Singrauli Colliery,
District Singrauli,
Madhya Pradesh - 486889.

Sub.: Expansion under 7(ii) of EIA Notification 2006 of Block –B Opencast Project from 4.375 MTPA to 5.47MTPA (25% additional of 4.375 MTPA of the existing EC) on an ML area of 1339 ha; Latitude 24° 09' 32" to 24° 11' 32" N & Longitude 82° 32' 36" to 82° 35' 12" E of M/s Northern Coalfields Ltd., Dist. Singrauli, Madhya Pradesh – Environment Clearance - reg.

Sir:

This is with reference to letter no. NCL/SGR/Env./13/3990 dated 08.03.2013 along with the application for expansion of the production under section 7(ii) of the EIA Notification, 2006. Reference is also invited to the subsequent letter nos. dated 22.05.2013; 21.08.2013; 13.09.2013; 22.10.2013; 28.11.2013, 18.12.2013 and 20.5.2014 for Environmental Clearance on the abovementioned subject.

- 2. The Ministry of Environment, Forests & Climate Change has considered the application. It is noted that the proposal is for grant of Environmental Clearance for Expansion under 7(ii) of EIA Notification 2006 of Block -B Opencast Project from 4.375 MTPA to 5.47MTPA (25% additional of 4.375 MTPA of the existing EC) on an ML area of 1339 ha; Latitude 24° 09° 32" to 24° 11° 32" N & Longitude 82° 32° 36" to 82° 35' 12" E of M/s Northern Coalfields Ltd., Dist. Singrauli, Madhya Pradesh. The proposal was considered in the 75<sup>th</sup> EAC meeting held on 3<sup>rd</sup> 4<sup>th</sup> June, 2013 and reconsidered in the 5<sup>th</sup> EAC meeting held on 25<sup>th</sup> 26<sup>th</sup> November 2013. The proponent has informed that:
  - Ministry had issued the environmental clearance vide letter no, J-11015/40/2009-IA.II (M) dated 19.05.2009 for 4.375 MTPA. Now, project proponent requested for 25 % expansion as per O.M no. J-1105/30/2004- IA. II (M) dated. 19.12.2012.
  - ii. The land usage of the project will be as follows:

 Pre-mining:
 S No.
 Particulars
 Land Area (Ha)

 1
 Forest Land
 447.00

 2
 Agriculture Land (Tenancy Land)
 463.00

 3
 Government Land
 429.00

 Total
 Total

Block-B\_EC

Page 1 of 9

### Post -mining

	_	Total	Post mining land use in ha						
Sl. No.	Land use	Land Area (Ha)	Plantation/ afforestation	Water body	Public	Undisturbed Land			
1.	Top Soil dump	Not estimated separately. Included in OB dump.							
2.	External Waste Dump (OB Dump)	429.10	429.10	•					
3,	Excavation area	460.20	113.30	346.90		<del> </del>			
4.	Built up area	81.10			01.18				
5.	Afforestation (Green Belt)	183.98	183.98		01.10	<u> </u>			
6.	Undisturbed area	184.62		<del></del>	<del> </del>	184.62			
	Total	1339.00	726.38	346.90	81.10	184.62			

Core Area: Total excavation area will be 460.20 ha and the back filled area would be 113.30 ha with a void /water body of 346.90 ha.

- iii. The total geological reserve is 110.67 MT. The mineable reserve is 87.67 M, extractable reserve is 87.67 MT. The per cent of extraction would be 79.21 %. The coal grades are C, D, E & F having stripping ratio of 3.31 m3/tonne. The average Gradient is 8 22 degrees. There will be total two seams with thickness ranging from 14.95 26.3 m.
- iv. There is no water river/nallha flows adjacent to the proposed mine.
- v. The total estimated water requirement is 5000 m3/d. The potable water would be 1280 m3/d from bore well & industrial water 3720 m3/d from mine sump and surface reservoir. The level of ground water ranges from 0.52 -16.14 m.
- vi. The Method of mining would be mechanized opencast by shovel dumper combination requiring drilling and blasting.
- vii. Power demand of 9.82 MW is being met by MPSEB through Morwa substation and is adequate for proposed expansion.
- viii. There are one external OB Dumps covering an area of 429.10 Ha. The height for the dumps would be 90 m. The total quantity of 242.29 mm3. The year of back filling would be 2027-28. There is two internal dump covering an area of 113.30 ha having a height upto 120 m. With the quantity of 47.85 mm3. The final mine voids will have an area of 346.90 ha. and depth 30-40 m which is proposed to be converted into a water body.
- ix. The ambient air quality monitored on fortnightly basis throughout the year. The monitoring activity is carried out since the year 2007 to till date and all results at all stations are within prescribed limits.
- x. The life of mine is 17 years from 2012-13.
- xi. Transportation: Transportation of coal in pit by rear dumpers. Surface to siding at present by trucks, CHP under construction and siding to loading by at present by trucks. The CHP is under construction.
- xii. There is no R & R involved. The no of PAFs will be 569.
- xiii. Project Cost: Total capital cost of the project is Rs. 535.10 Crore as. The cost of production would be Rs. 507.93/ton (Jan-13). The R&R Cost would be Rs. 579. 04 Lakhs. Environmental Management Cost is Rs. 1819.98 lakhs.
- xiv. Approvals: Ground water clearance has been obtained. The Mine Closure plan obtained on 14.05.2011. The Mining Plan for 4.375 MTPA approved on 07.04.2009. The Board's Approval was accorded on 23.02.2011.
- xv. Wildlife issues: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.

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Block-B\_EC

- xvi. Forestry issues: Total forest area involved for mining 447.00 ha. The forest clearance for total area has been obtained. Extent of forest land in the project is ha. Stage -1 FC issued vide letter F. No. 8-59/2005-FC dated 14.09.2006 for 447.00 ha which is valid for 20 years.
- xvii. Total afforestation plan shall be implemented covering an area of 726.38 ha at the end of mining where reclaimed external OB dump 429.10 and Internal OB Dump 113.30 ha. Green Belt over an area of 183.98 ha. Density of tree plantation 2500 trees/ ha of plants. Till date 2.69 lakhs plants are planted.
- xviii. The proponent has informed that the project is not under moratorium.
- xix. There are no court cases/ violation pending with the project proponent.
- xx. Public hearing: The public hearing for opencast mine having capacity 4.375 MTPA was held on 26.08.2003.
- 3. Certificate of compliance of earlier EC from MoEF, Regional office, Bhopal has been received vide their letter no. 3-23/2005/(ENV)/1315 dated 20.08.2013. The Committee deliberated upon the compliance report received from MoEF, Regional Office, Bhopal. The Committee noted that the proponent has not complied with several conditions of the earlier EC which include reclamation of Gorbi Mine; measures for addressing Acid Mine Drainage (AMD) occurring in the Gorbi mine; progressive afforestation plan; Construction of the retaining wall at the toe of the dumps and OB benches within the mine to check run of and siltation shall be based on the rainfall data etc.
- 4. The Madhya Pradesh State Pollution Control Board, vide its letter no. 8723TS/MPPCB/2013 dated 07.12.2013 forwarding the letter from its Regional Office vide letter no. RO/MPPCB/2013 dated 6.12.2013 informed that "The area of Block-B project is not included in CEPI area as specified in MoEF OM dated 15.3.2013".
- 5. The proponent has submitted additional information, vide latter no. NCL/Env./Bock B/EC/MoEF/4747 dated 20.5.2014 intimating that implementation of acid mine water treatment will be carried out by CMPDI by treatment with lime. The salient features of the action plan include the following:
  - (i) Preparation of interim report for acid water treatment by lime: by the end of 2013.
  - (ii) Preparation of final report of acid water treatment: by the end of 3<sup>rd</sup> quarter of 2014.
  - (iii) Precatory work for acid treatment (experimental) :by the end of 1st quarter of 2014.
  - (iv) Start of acid treatment by neutralisation: by the middle of 2<sup>nd</sup> quarter of 2014.
  - (v) Neutralisation process Phase-I(Exp): by the end of 3rd quarter of 2014.
  - (vi) Monitoring of Phase -1: by the end of 1st quarter of 2015.
  - (vii) Neutralisation Process Phase II: by the end of 2nd quarter of 2015.
  - (viii) Monitoring of Phase-II: by the middle of 4th quarter of 2015.
  - (ix) Filling of voids by OB: by the end of 4th quarter of 2016 and will be continued till 2017.
  - (x) Reclamation of filled area: by the end of 4th quarter of 2016 and will be continued till 2017.
- 6. The proposal was reconsidered in the Expert Appraisal Committee (EAC) (Thermal & Coal Mining) and recommended in its 5<sup>th</sup> meeting held on 25<sup>th</sup> 26<sup>th</sup> November, 2013 for granting Environmental Clearance. The Ministry of Environment, Forests & Climate Change hereby accords environmental clearance for the above-mentioned Expansion under 7(ii) of EIA Notification 2006 of Block -B Opencast Project from 4.375 MTPA to 5.47MTPA (25%)

Block-B EC

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additional of 4.375 MTPA of the existing EC) on an ML area of 1339 ha; Latitude 24° 09' 32" to 24° 11' 32" N & Longitude 82° 32' 36" to 82° 35' 12" E of M/s Northern Coalfields Ltd., Dist. Singrauli, Madhya Pradesh under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments thereto subject to the compliance of the terms and conditions mentioned below:

#### A. Specific Conditions:

- The Proponent shall implement its Action Plan dated 20.5.2014 for treatment of acid mine water. This shall be reviewed in the 1<sup>st</sup> quarter of 2017 by the MoEFCC/EAC. The Proponent and the State Pollution Control Board shall monitor the progress of the report and send reports to the concerned Regional Office of the MoEFCC.
- ii. The Proponent shall implement the acid mine treatment based on IIT, Bombay report;
- iii. NEERI to make annual inspection at the Proponent's cost but submit report directly to the MoEFCC regarding implementation of acid mine water treatment in the mine and also to assess impact of acid mine water in the mine to the nearby villages.
- iv. The maximum production from the mine at any given time shall not exceed the limit as prescribed in the EC.
- v. The conditions as stipulated in the earlier J-11015/40/2009-IA.II (M) dated 19.05.2009 shall also be complied with.
- i. Details of water recharge plan be developed within next six months for implementation.
- ii. Rs. 2.75 Cr shall be provided as CSR cost which was agreed by the Proponent as against the proposed Rs. 1.635 Cr.
- iii. Plantation be carried out in around the mine.
- iv. Long term studies of impact of Gorbi acid mine on the surrounding surface and ground water need to be carried out. Detailed remedial management plan of the acid mine void be submitted and implemented.
- v. External OBD to be fully rehandled into the mine void and mine void brought to the near surface level.
- vi. Road transport from mine to siding (13 Km) away is to be stopped within two years and coal dispatch through CHP under construction through Railway wagons with silo loading.
- vii. Screening of local population for health disorders need to be conducted by a competent Institute.
- viii. Comparative analysis of land use based on satellite images and deviations, if any, be submitted for the record of the MoEFCC.
- ix. The mining area should be grounded by green belt having thick closed thick canopy of the tree cover.
- x. The Committee desired that a plan for repairing/plugging the cracks found in houses should be drawn up and implemented.
- xi. Transportation of coal in pit by rear dumpers. Surface to siding at present by trucks, CHP under construction and siding to loading by at present by trucks. The CHP is under construction. The production shall be within the same Mining Lease area.
- xii. The void area will be converted into water body. The depth of the internal void shall be 40 m from the ground level and be used for fishery purpose. The rest of the area will be back filled upto the ground level and covered with about a meter thick top soil and put to use.
- xiii. The OB shall be completely re-handled at the end of the mining.
- xiv. Garland drains be provided.
- xv. There are 1689 PAFs. The R&R Cost would be Rs. 579. 04 Lakhs.
- xvi. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the mine.
- xvii. The land after mining shall be brought back for agriculture purpose.

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- Mine water should be treated for discharge into the lagoon. The quality of lagoon water shall xviii. be regularly monitored and mitigation measures taken.
- The CSR cost should be Rs 5 per Tonnes of Coal produced which should be adjusted as per xix. the annual inflation.
- Everybody in the core area should be provided with mask for protection against fugitive dust XX. emissions.
- Dust mask to be provided to everyone working in the mining area. xxi.
- The supervisory staff should be held personally responsible for ensuring compulsory regarding xxii. wearing of dust mask in the core area.
- People working in the core area should be periodically tested for the lung diseases and the xxiii. burden of cost on account of working in the coal mine area.
- The mining area should be grounded by green belt having thick closed thick canopy of the tree xxiv.
- The embankment constructed along the river boundary shall be of suitable dimensions and XXV. critical patches shall be strengthened by stone pitching on the river front side and stabilised with plantation so as to withstand the peak water flow and prevent mine inundation.
- There shall be no overflow of OB into the river and into the agricultural fields and massive xxvi. plantation of native species shall be taken up in the area between the river and the project.
- OB shall be stacked at two earmarked external OB dumpsite(s) only. The ultimate slope of the xxvii. dump shall not exceed 28°. Monitoring and management of existing reclaimed dumpsites shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Environment, Forests & Climate Change and its concerned Regional office on yearly basis.
- Catch drains and siltation ponds of appropriate size shall be constructed to arrest silt and xxviii. sediment flows from soil, OB and mineral dumps. The water so collected shall be utilised for watering the mine area, roads, green belt development, etc. The drains shall be regularly desilted and maintained properly. Garland drains (size, gradient and length) and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper settling of silt material.
  - Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to xxix. check run-off and siltation shall be based on the rainfall data.
  - Crushers at the CHP of adequate capacity for the expansion project shall be operated with high XXX. efficiency bag filters, water sprinkling system shall be provided to check fugitive emissions from crushing operations, conveyor system, haulage roads, transfer points, etc.
- Drills shall be wet operated. xxxi.
- The project authorities shall undertake regular repairing and tarring of roads used for mineral xxxii. transportation. A 3-tier green belt comprising of a mix of native species shall be developed all along the major approach roads,
- Controlled blasting shall be practiced with use of delay detonators and only during daytime. xxxiii. The proponent would need to repair the cracks in the houses if it occurred on account of blasting. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders shall be implemented.
- A Progressive afforestation plan shall be implemented covering an area of 726.38 ha at the end xxxiv. of mining, which includes reclaimed external OB dump area (429.10 ha), internal OB dump area (113.30 ha), and green belt (183.98 ha) and in township located outside the lease by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha. Massive plantation shall be carried out in open spaces in and around the mine and a 3-tier avenue plantation along the main approach
- An estimated total 290.14 Mm3 of OB will be generated during the entire life of the mine. Out XXXV. of which 242.29 Mm3 of OB will be dumped in one external OB Dumps in an earmarked area

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covering 429.10 ha of land. 47.85 Mm³ of OB will be dumped in two internal OB Dumps in an earmarked area covering 113.30 ha of land. The maximum height of external OB dump for hard OB will not exceed 90 m and that for soft OB shall not exceed 60 m. The maximum slope of the dump shall not exceed 28 degrees. Monitoring and management of reclaimed dump sites shall continue till the vegetation becomes self- sustaining and compliance status shall be submitted to MOEFCC and its Regional Office on yearly basis.

- xxxvi. The proponent should prepare restoration and reclamation plan for the degraded area. The land be used in a productive and sustainable manner.
- xxxvii. Compensatory Ecological &Restoration of waste land, other degraded land and OB dumps in lieu of breaking open the land be carried out.
- xxxviii. The mining should be phased out in sustainable manner. No extra over burden dumps are permitted.
- xxxix. No groundwater shall be used for mining operations.
  - xl. Of the total quarry area of 460.20 ha, the backfilled quarry area of 113.30 ha shall be reclaimed with plantation and a void of 346.90 ha at a depth of 40 m which is proposed to be converted into a water body shall be gently sloped and the upper benches shall be terraced and stabilised with plantation/afforestation by planting native plant species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha.
  - xli. Regular monitoring of groundwater level and quality shall be carried out by establishing a network of existing wells and construction of new peizometers. The monitoring for quantity shall be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality in May. Data thus collected shall be submitted to the Ministry Environment, Forests & Climate Change and to the Central Pollution Control Board quarterly within one month of monitoring.
  - xlii. The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource in case monitoring indicates a decline in water table. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
- xliii. Sewage treatment plant shall be installed in the existing colony. ETP shall also be provided for workshop and CHP wastewater.
- xliv. Besides carrying out regular periodic health check-up of their workers, 10% of the workers identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, through an specialised agency /institution within the District/State and the results reported to this Ministry and to DGMS.
- xlv. Land oustees shall be compensated as per the norms laid out R&R Policy of CIL or the National R&R Policy or R&R Policy of the State Government whichever is higher.
- xlvi. For monitoring land use pattern and for post mining land use, a time series of landuse maps, based on satellite imagery (on a scale of I: 5000) of the core zone and buffer zone, from the start of the project until end of mine life shall be prepared once in 3 years (for any one particular season which is consistent in the time series), and the report submitted to MOEFCC and its concerned Regional office
- xlvii. A detailed Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment, Forests & Climate Change within 6 months of grant of Environmental Clearance.
- xlviii. The project authorities shall in consultation with the Panchayats of the local villages and administration identify socio-economic and welfare measures under CSR to be carried out over the balance life of the mine.
- xlix. The commitment made by the Proponent to the issue raised during Public Hearing shall be implemented by the Proponent.

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1. Corporate Environment Responsibility:

- The Company shall have a well laid down Environment Policy approved by the Board of Directors.
- b) The Environment Policy shall prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.

c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished.

d) To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.

### B. General Conditions:

- i. No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment, Forests & Climate Change.
- ii. No change in the calendar plan of production for quantum of mineral coal shall be made.
- iii. Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> monitoring. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc carried out at least once in six months.
- iv. Data on ambient air quality (PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>) and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly submitted to the Ministry including its concerned Regional Office and to the State Pollution Control Board and the Central Pollution Control Board once in six months. Random verification of samples through analysis from independent laboratories recognised under the EPA rules, 1986 shall be furnished as part of compliance report.

v. Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs.

vi. Industrial wastewater (workshop and wastewater from the mine) shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19<sup>th</sup> May 1993 and 31<sup>st</sup> December 1993 or as amended from time to time before discharge. Oil and grease trap shall be installed before discharge of workshop effluents.

vii. Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded.

viii. Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board and data got analysed through a laboratory recognised under EPA Rules, 1986.

ix. Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.

x. Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed and records maintained thereof. The quality of environment due to outsourcing and the health and safety issues of the outsourced manpower should be addressed by the company while outsourcing.

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- xi. A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the company.
- xii. The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its concerned Regional Office.
- xiii. The Project authorities shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution control Board and may also be seen at the website of the Ministry of Environment, Forests & Climate Change at <a href="http://envfor.nic.in">http://envfor.nic.in</a>.
- xiv. A copy of the environmental clearance letter shall be marked to concern Panchayat/Zila Parishad, Municipal Corporation or Urban local body and local NGO, if any, from whom any suggestion/representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on company's website.
- xv. A copy of the environmental clearance letter shall be shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industry Sector and Collector's Office/Tehsildar's Office for 30 days.
- xvi. The clearance letter shall be uploaded on the company's website. The compliance status of the stipulated environmental clearance conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in public domain. The monitoring data of environmental quality parameter (air, water, noise and soil) and critical pollutant such as PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> (ambient) and critical sectoral parameters shall also be displayed at the entrance of the project premises and mine office and in corporate office and on company's website.
- xvii. The project proponent shall submit six monthly compliance reports on status of compliance of the stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of the Ministry, respective Zonal Office s of CPCB and the SPCB.
- xviii. The Regional Office of this Ministry located in the Region shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/information/monitoring reports.
- xix. The Environmental statement for each financial year ending 31 March in For -V is mandated to be submitted by the project proponent for the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MoEFCC by e-mail.
  - The proponent shall abide by all the commitments and recommendations made in the EIA/EMP report so also during their presentation to the EAC.
  - 8. The commitment made by the Proponent to the issue raised during Public Hearing shall be implemented by the Proponent
  - The proponent is required to obtain all necessary clearances/approvals that may be required before the start of the project. The Ministry or any other competent authority may stipulate any further condition for environmental projection.
  - 10. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

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- 11. The Proponent shall setup an Environment Audit cell with responsibility and accountability to ensure implementation of all the EC Conditions.
- 12. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- 13. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India/ High Courts and any other Court of Law relating to the subject matter. The proponent shall ensure to undertake and provide for the costs incurred for taking up remedial measures in case of soil contamination, contamination of groundwater and surface water, and occupational and other diseases due to the mining operations.
- 14. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
- 15. This EC supersedes the earlier EC, vide letter no. J-11015/40/2009-IA.II (M) dated 19.5.2009, for an expansion in production from 4.375 MTPA.

(Dr. Manoranjan Hola)

Director

### Copy to:

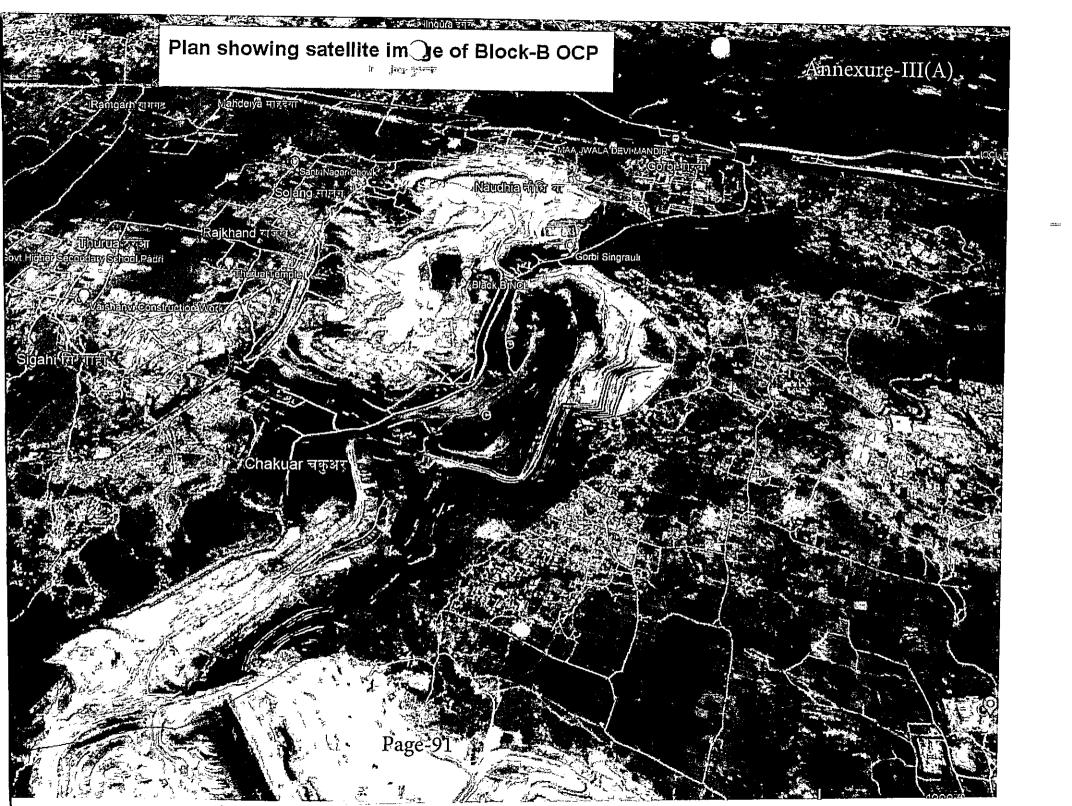
- 1. Secretary, Ministry of Coal, New Delhi.
- 2. Chief Conservator of Forests, Regional office (EZ), Ministry of Environment & Forests, E-2/240 Arera Colony, Bhopal 462016.
- 3. Secretary, Department of Environment & Forests, Government of Madhya Pradesh, Secretariat, Bhopal.
- 4. Member Secretary, Madhya Pradesh State Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony, Bhopal 462016.
- Member Secretary, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, New Delhi -110032.
- Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi.
- Dr. R.K. Garg, Advisor, Coal India Limited, SCOPE Minar, Core-I, 41 Floor, Vikas Marg, Laxini nagar, New Delhi.
- 8. District Collector, Singrauli, Government of Madhya Pradesh.
- 9. Monitoring File 10. Guard File 11. Record File 12. Notice Board.

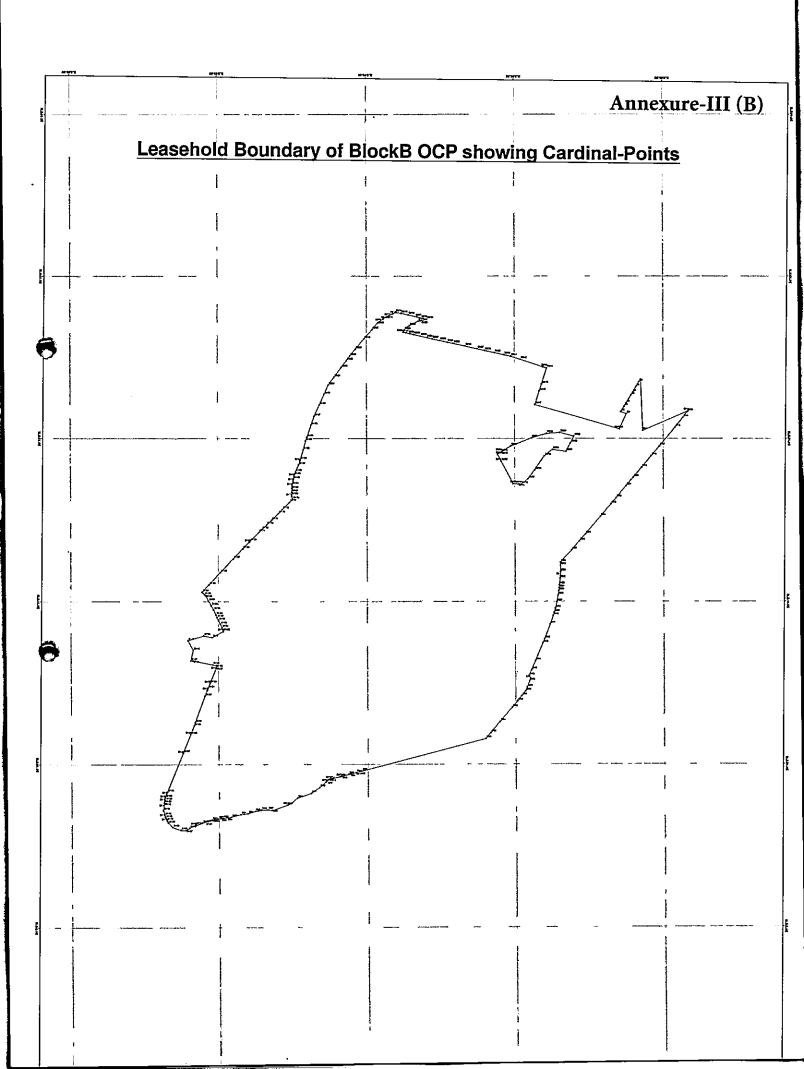
(Dr. Manoranjan Hota

Director

Block-B\_EC

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# Government of India Ministry of Environment, Forest and Climate Change (Forest Conservation Division)

Indira Paryavaran Bhawan Aliganj, Jor bagh Road New Delhi - I 10003 Dated: 29<sup>th</sup> June, 2022

To

The Principal Secretary (Forests), Government of Madhya Pradesh, Bhopal.

Subject: Diversion of 631.39 ha (instead of 622.783 ha) forest land of Survey No. RF-276, 281 & PF-277, 278, 279, Village- Muhair and Padri, Range Baidhan in Singrouli Forest Division for Block-B Expansion Opencast Coal Mining in favour of M/s Northern Coalfield Limited in Singrauli District of Madhya Pradesh (Online No. FP/MP/MIN/44294/2020) — regarding.

Madam/Sir,

This is in reference to the Principal Chief Conservator of Forests (Land Management) & Nodal Officer, FCA, Government of Madhya Pradesh's letter No. F-1/823/2021/1011 /1408 dated 21.04.2022 on the above mentioned subject. In this regard, the subject cited proposal for diversion of forest land was considered by the FAC in its meeting held on 13th June, 2022.

The proposal was examined in detail and it has been observed that the proposal in its present form is not site specific as more than 78% of the forest area is proposed for dumping the overburden, which can be done over non-forest land. Keeping this in view the above proposal for diversion of forest land stands rejected.

This issues with the approval of the competent authority.

Yours sincerely,

Sd/-(Suneet Bhardwaj) Assistant Inspector General of Forests

Copy to:

1. The PCCF (HoFF), Department of Forest and Environment, Government of Madhya Pradesh, Bhopal;

2. The Regional Officer, Integrated Regional Office, MoEF&CC, Bhopal;

3. The Nodal Officer (FCA), Department of Forest and Environment. Government of Madhya Pradesh, Bhopal;

4. User Agency;

5. Monitoring Cell, FC Division, MoEF & CC, New Delhi for uploading on PARIVESH portal.

#### File No.CPAM•3401112812019-CPAPITI

### File No. CPAM-34011128/2019-CPAM Government of India Ministry of Coal

Room No, 622.A. Shasta Shawan. New Delhi. dated 9th September, 2020

To,

The Chairman, CIL, Kolkata

Subject Approving Authority for mining plan for projects of CIL and its subsidiary companies . reg.

I am directed to refer to your letter No. CILCI-1:1307 dated 31.08.2020 on the Subject cited above and to convey that there Is no change in the existing provisions of approving authority of Mining Plan of CIL and its subsidiary companies which was issued vide this Ministry's letter No. 340121(9y2012-CPAIA dated 31.05.2012.

This has the approval of competent authority.

Yours Sinc rely.

(Millar Singh)
Under Secretary to the Govt. of India
E-mail Id: hitlar.singhB5t§nIc.in

### F. No. 34011/28/2019-CPAM Government of India Ministry of Coal

Shastri Bhawan, New Delhi The ..' May 2020

### Office Memorandum

Subject: Guidelines for Preparation, Formulation, Submission, Processing, Scrutiny, Approval and Revision of Mining plan for the coal and lignite blocks.

Undersigned is directed to state that the guidelines for formulation of Mining plan and Mine Closure Plan has been amended. It has been decided by the Government that all coal (including lignite) mining operations in India shall henceforth be governed as per modified guidelines enumerated below.

- 1. Mining Plan: All coal (including Lignite) mining operation in India shall henceforth be governed as per these modified guidelines listed below and henceforth, the Mine Closure Plan and Final Mine Closure Plan shall be integral part of Mining Plan. Separate approval of Mine Closure Plan/Final Closure Plan has been done away with. The Guideline/format for formulation of Mining plan is enumerated at Appendix I.
- 1.1. Implementation of the approved Mining Plans shall be sole responsibility of the mine owner. Mining operations shall be undertaken in accordance with the duly approved mining plan. The mining plan once approved shall be valid for the balance life of the Mine, provided that any modification(s) of the mining plan is approved by the competent authority and such approval of the modified mining plan shall remain valid for the estimate balance life of the mining plan. Modification of the approved mining plan during the operation of a mining lease also requires prior approval.
- The mining plan shall cover prescription for different phases of life of the mine as stage plan. 1.2. The Stage plan for 1st year, 3rd year, 5th year, year of achieving rated capacity of the mine, Final year (i.e. at the end of mine life) and post closure shall be submitted at the time of initial submission of mining plan. The project proponent shall submit a report/information consisting a. compliance status with respect to approval condition of mining plan and grounds specified at para 1.3A; b. stage plan for next five years; c. revised balance life of the mine; and d. revised calculation of ESCROW amount with respect to revised balance life, to Coal Controller, CCO, Kolkata with a copy of the same to Administrative Section dealing with the allocation/allotment of the block and section dealing with approval of mining plan at MoC/CCO, for information. Such report/information must be submitted at least 180(one hundred eighty) days before the expiry of 5 (five) year, starting from the commencement of the Mineral Concession (Amendment) Rules, 2020 or the date of execution of the duly executed mining lease deed, whichever is later. Information desired above must bear certificate of Qualified Person/ Accredited Mining Plan preparing Agency and have approval of the respective company board. Non submission of such information during the stipulated time may result in withdrawal of mine opening permission or cancellation of the approved mining plan, as may be decided by CCO.

The Mining Plan approved prior to issue of this Guideline will qualify for submission of such report/information at least 180(one hundred eighty) days prior to expiry of 5 (five) year from the date of notification of the Mineral Concession Amendment Rules 2020.

1.3.(A) The mining plan may be modified for a. for change in method of mining; b. for facilitating increase in sanctioned peak capacity that is in excess of one hundred and fifty per cent of the

sanctioned rated capacity; c. change in leased area; d. in the interest of safe and scientific mining; e. conservation of minerals; f. for the protection of environment; g. addition of reserve by way of proving of reserve in the existing lease area; h. for changes in final mine closure conditions; or i. and such other change that may be determined by the Central Government. While submission of revision/ modification of mining plan the reason for revision/ modification shall be specified in writing by the lessee.

- (B) Notwithstanding anything contained in clause (A) above, for other minor changes, the project proponent is empowered to make modification with the approval of the respective company board. These minor changes shall cover a changes in land type within the leased area; b. changes in HEMM deployment plan; and c. changes in location of infrastructure within the leased area. The project proponent shall submit specific report of such minor changes to Coal Controller, CCO, Kolkata with a copy of the same to Administrative Section dealing with the allocation/allotment of the block and section dealing with approval of mining plan at MoC/CCO, for information.
- 1.4. The Mining Plan submitted for approval shall have prior approval of the concerned Board of the Company.
- 1.5. The base date of the Mining Plan should be taken as cut-off date on which the extractable reserve, balance life etc. has been quantified.
- 1.6. The proposed leased area in the Mining Plan shall include the area specified in the mining lease within which mining operations can be undertaken and includes the non-mineralized area required and approved for the activities falling under the definition of mine as referred in The Mines Act 1952. Evacuation route, R&R and Employee Township area outside the block will not be part of the Mining plan.
- 1.7. Pre-mining land ownership/land type furnished in the mining plan will be of indicative in nature along with data source at its footnote (viz. from topo sheet, cadastral plan etc.).
- 1.8. The excavation/ mining area envisages in the mining plan must be restricted within the allotted/vested geological block boundary/existing mining lease and if the project area is confined within the allotted block boundary/existing mining lease, a certificate to this effect is to be provided by the Qualified Person/ Accredited Mining Plan preparing Agency preparing the mining plan. The certificate must be made on the Conceptual Plan depicting Cardinal Point Coordinates (shape co-ordinates) of the project boundary, Lease boundary and Geological Block boundary (binding co-ordinates given in the vesting order).
- 1.9. Under provisions of Rule 16 of MCR 1960, State Government is custodian of the exploration data. As such in the cases, where the project area extends beyond the block boundary/existing mining lease the Mines and Geology Department of the concerned State Government shall issue a certificate specifying (a) intent of the State Government for grant of lease beyond the vested geological boundary; (b) non-existence of coal/ lignite in the area beyond the vested/allotted geological block boundary/existing mining lease to rule out the issue of encroachment. The application for issue of certificate from the Mines and Geology Department of the State Government must be supported with proof of the non-existence of coal/lignite in the area under reference (along with their Cardinal Point coordinates) duly certified by custodian agency viz. CMPDIL/SCCL in case of coal and NLCIL in case of lignite.

Where the project area extends beyond the block boundary/existing mining lease, the certificate issued by the Mines and Geology Department of the concerned State Government must be attached in the Mining Plan.

1.10. In case of allotted/auctioned coal/lignite blocks, the mining plan may be revised for extraction of more coal on year to year basis.

Provided that the mining plan shall be revised for extraction of less coal on year on year basis only under following circumstances: a. if the remaining extractable reserve of the coal mine is less than

3(three) times of the rated Capacity of the current Approved Mining Plan; b. Change in method of mining from Opencast to Underground necessitated due to change in geo-mining conditions. However, revision of Mining Plan for extraction of less coal would be subject to prior approval of the Nominated Authority.

- 1.11. The approval of the revised Mining Plan shall not result in changes in the terms and conditions or efficiency parameters mentioned in the CMDPA/Allotment Agreement signed at the time of allotment/vesting for the auctioned/allotted blocks without prior approval of the nominated authority or Central Government, as the case may be. However, efficiency parameters mentioned in the CMDPA/Allotment Agreement shall be linked to the rated capacity of the mine.
- 1.12. The project proponent shall envisage the action plan for exploration and liquidation of the balance reserve yet to be projectised.
- 1.13. The project proponent shall take all necessary precautions regarding safety of mine workings and persons deployed therein and shall adhere to all the statutory clearances with regards to safety.
- 1.14. Proposed project area envisaged in the mining plan shall not encroach into any other adjacent coal block unless permitted to do so by the Ministry of Coal in writing.
- 1.15. The approval of the Mining Plan is without prejudice to the requirement of approvals from competent /prescribed authority under the relevant rules/ regulations etc.
- 1.16. The project proponent shall submit an undertaking that the mine shall be operated as per the Environment Clearance (EC) & Forestry Clearance (FC) for the project.
- 1.17. Statutory Obligation: The legal obligations, if any, which the lessee is bound to implement, like special conditions imposed while execution of lease deed, approval of Mining Plan, conditions imposed by the Ministry of Environment, Forest and Climate Change (MoEF&CC), Central Pollution Control Board (CPCB), State Pollution Control Board (SPCB). Directorate General of Mines Safety (DGMS) or any other organizations describing the nature of conditions and compliance positions thereof, should be indicated in the Mining Plan.
- 2. Mine closure Plans: Mine Closure Plans will have two components viz. i) Progressive or Concurrent Mine Closure Plan, and ii) Final Mine Closure Plan. Progressive Mine Closure Plan would include various land use activities to be done continuously and sequentially during the entire period of the mining operations, whereas the Final Mine Closure activities would start towards the end of mine life, and may continue even after the reserves are exhausted and/or mining is discontinued till the mining area is restored to an acceptable level. The Mine closure details of the Mining Plan should be oriented towards the restoration of land back to its original as far as practicable or further improved condition.
- 2.1. Mining is to be carried out in a phased manner along with reclamation and afforestation work in the mined-out area.
  - Progressive mine closure plan shall be prepared for a period of every five years from the beginning of the mining operations. These plans would be examined periodically in every five years period and to be subjected to third party monitoring by the agencies approved by the Central Government. like Central Mine Planning and Design Institute Ltd. (CMPDIL), National Environmental Engineering Research Institute (NEERI). Indian Institute of Technology (IIT-ISM) or any other institutes/ organizations/ agencies specified from time to time for the purpose.
- 2.3. Various project specific activities viz. mined-out land details & their technical and biological restoration plan, water quality management, infrastructure to be retained and demolished, disposal of mining machinery, etc. shall be furnished in the relevant paras. Where the backfilling of the mine void is being carried out as part of regular mining operation, it shall not be included in the list of progressive mine closure activities. However, in case, where the backfilling of mine void is to be carried out specifically for closure of the mine, quantum of such overburden and the mine closure fund earmarked for the purpose must be included in the list of activities to be taken up for mine closure in the mining plan at the time of submission itself.

- 2.4. The Government may at any time before the closure of mine require certain activities to be included in the mine closure plans, which it may consider necessary for the safety and conservation of environment, or in compliance with any modification/ amendment in the relevant legislation.
- 2.5. Abandonment cost: The total cost for carrying out such activities shall be estimated for assessment of abandonment cost of the mine involving progressive and final mine closure activities such as barbed wire fencing all around the working area, dismantling of structures/demolition and cleaning of sites, rehabilitation of mining machinery, plantation, physical/biological reclamation, landscaping, biological reclamation of left-out overburden dump, filling up of de-coaled void, post environmental monitoring, supervision charges, power cost, protective and rehabilitation measures including their maintenance and monitoring, miscellaneous charges etc. for the specified post closure period.
- 2.6. Escrow Account Calculation: In August 2009 it was estimated that typically closure cost for an opencast mine was around rupees six lakhs per hectare of the total project area and rupees one lakh per hectare for underground project area at the-then price level. Accordingly vide letter dated 7th January 2013 a guideline for mine closure was issued which needed modification in these rates based on the wholesale price index (WPI) as notified by Government of India from time to time while preparing the Mining plan and Mine Closure Plan. The escalated rate (based on the current base year i.e. 01.04.2019) is Rupees Nine Lakh per hectare in opencast and Rupees one lakh fifty thousand per hectare for underground Mine. These rates will be considered as Base Rate to be applicable from 01.04.2019, which may change as specified from time to time by the Government of India.

[Exemplary Calculation: ](Rs 6 lakhs x 1.561 linking factor for base year 2004-05 x WPI 121.1 as on April 2019) (WPI as on August 2009)] Rupees 8.75 lakh, rounded to Rupees 9 (nine) lakhs per hectare in case of Opencast project].

Henceforth, these rates will stand modified based on the wholesale price index (WPI) as notified by Government of India from time to time. Annual closure cost is to be computed considering the total project area of the mine multiplied by escalated rate (at the above mentioned rates) and dividing the same by the balance life of the mine in years. An amount equal to the annual cost is to be deposited each year throughout the mine life compounded @5% annually.

[For example if the annual cost works out to Rs 100, then in the first year the amount to be deposited will he Rs 100, in the second year  $100x(1 \pm 5\%)\%1$ , in the third year  $100x(1 \pm 5\%)^2$  and so on.]

Further, in case of the mine, where escrow account is already open, the annual closure cost is to be computed considering the total project area at the above mentioned rates minus the amount already deposited and dividing the same by the balance life of the mine in years and annual cost as arrived should be compounded @5% annually.

- 2.7. Financial Assurance: The Mining Company/ Mine Owner as a part of Financial Assurance will open a Fixed Deposit Escrow account, with the Coal Controller Organization (on behalf of the Central Government) as exclusive beneficiary prior to commencement of any activities on the land/project area of the mine and shall submit the same to Coal Controller Organization (CCO) before the permission is given for opening the mine. The mining company shall cause the payment to be deposited at the rate computed as indicated at Para 2.6. The owner of the company may select the Schedule Bank where the Escrow account is to be opened and inform the same to the Coal Controller, CCO, Kolkata.
- 2.8. Coal Controller, Kolkata shall get the WPI (used for escalation of closure cost at the time of formulation of Mining plan) updated, at the time of opening of Escrow account. The mine owner/company including all public/private sector companies shall deposit the yearly amount in a Schedule Bank in accordance with Para 2.6. Coal Controller, Kolkata shall also get the

- information, submitted under to para 1.2, verified and get the yearly closure cost modified ith respect to the latest WPI in accordance with para 2.6.
- 2.9. Final Mine Closure: The details of the Mining Plan (covering Final Mine Closure Plan envisaging the details of the updated cost estimates for various mine closure activities and the Escrow Account already set up, shall be submitted to the approving authority for approval at least five years before the intended final closure of the mine.
- 2.10. Final Mine Closure would be considered to be completed only after acceptance of the third-party audit report by the Coal Controller on the compliance of all provisions of Mine Closure Plan. Any Institute/ Organization/Agency as may be specified by the Government for this purpose may be engaged for Third Party audit to create a self-sustained ecosystem. Failure of restoration within the specified period may result in forfeiture of Escrow Account created as per Para 2.6& 2.7. The details of the Final Mine Closure Plan along with the details of the updated cost estimate for various mine closure activities and escrow account already set up shall be submitted at the time of approval of final mine closure plan.
- 2.11. Time Scheduling for abandonment: The Action plan for carrying out all abandonment operations (progressive and final mine closure) should be furnished in the form of bar chart for a period of life of the mine plus post closure period. Post closure period shall be taken as3 (three) years for Underground mines and Opencast mines having stripping ratio lesser than 6(six) MM<sup>3</sup>/Te & 5 (five) years for mines having stripping ratio more than 6(six) MM<sup>3</sup>/Te.
- 2.12. Implementation of the approved Mine Closure Plan shall be sole responsibility of the mine owner. Mining is to be carried out in a phased manner i.e. continuation of mining activities from one phase to other indicating the sequence of operations depending on the geo-mining conditions of the mine. Up to 50% of the total deposited amount including interest accrued in the ESCROW account may be released after every five years in line with the periodic examination of the Closure Plan as per Para 2.2. The amount released should be equal to expenditure incurred on the progressive mine closure in past five years or 50% whichever is less. The balance amount shall be released to mine owner/leaseholder at the end of the final Mine Closure on compliance of all provisions of Closure Plan. This compliance report should be duly signed by the lessee and certify that said closure of mine complied all statutory rules, regulations, orders made by the Central or State Government, statutory organisations, court etc. and certified by the Coal Controller.
- 2.13. Responsibility of the mine owner: It is the responsibility of the mine owner to ensure that the protective measures contained in the mine closure plan including reclamation and rehabilitation works have been carried out in accordance with the approved mine closure plan and final mine closure plan.
- 2.14. The owner shall submit to the Coal Controller a yearly report before I st July of every year setting forth the extent of protective and rehabilitative works carried cut as envisaged in the approved mine closure plans (Progressive and Final Closure Plans).
- 2.15. The money to be provided per hectare of total Project Area for the purpose is to be deposited every year on commencement of any development activity on the land for the mine after opening a Fixed Deposit Escrow Account prior to obtaining mine opening permission from Coal Controller. Mining company/owners including all Public Sector Undertakings shall deposit the yearly amount in a Scheduled Bank. If the Mine owners fail to deposit the required annual amount in accordance with Para 2.6, 2.7 & 2.8, the Government can withdraw the mining permission.
- 2.16, The funds so generated are towards the security to cover the cost of closure in case the mine owner fails to complete the relevant closure activities. The prime responsibility of mine closure shall always lie with the mine owner, and in case these funds are found to be insufficient to cover the cost of final mine closure including the areas covered in Para 2.3 2.6, 2.7, 2.8 & 2.9 above. The mine owner shall undertake to provide the additional fund equivalent to the gap in

- funding before five years of Mine Closure failing which it may be recovered by such other methods as the competent authority may deem fit in this regard.
- 2.17. Final Closure Certificate: The Mine owner shall be required to obtain a mine closure certificate from Coal Controller to the effect the protective, reclamation, and rehabilitation work in accordance with the approved Mining plan covering final mine closure provisions/activities have been carried out by the mine owner for surrendering the reclaimed land to the State Government.
- 2.18. The balance amount at the end of the final Mine Closure shall be released to mine owner on compliance of all provisions of Closure Plan duly signed by the mine owner to the effect that said closure of mine complied with all statutory rules, regulations, orders made by the Central or State Government, statutory organizations, court etc. and duly certified by the Coal Controller. This should also indicate the estimated extractable coal reserves and coal actually mined out.
- 2.19. If the Coal Controller has reasonable grounds for believing that the protective, reclamation and rehabilitation measures as envisaged in the approved mine closure plan in respect of which financial assurance was given has not been or will not be carried out in accordance with mine closure plan, either fully or partially, the Coal controller shall give the mine owner a written notice of his intention to issue the orders for forfeiting the sum assured at least thirty days prior to the date of the order to be issued after giving an opportunity to be heard.
- 3. Formulation of Mining Plan by Qualified Person (QP) or Accredited Mining Plan Preparing Agency (MPPA):
- 3.1. System of granting Recognition to a person for preparation of mining plan u/s 22C of MCR 1960 & preparation of mining plan only by RQP u/s 228 of MCR 1960 shall be done away with, after commencement of the Mineral Concessions (Amendment) Rules, 2020.
- 3.2. After commencement of Mineral Concession (Amendment) Rule 2020, no mining plan shall be accepted unless it is prepared by Qualified Person (QP) or Accredited Mining Plan Preparing Agency (MPPA).
- 3.3. Quality Council of India (QCI) or National Accreditation Board for Education and Training (NABET) shall be engaged for accrediting following entities:
  - (i) Accredited Prospecting Agency (APA) for undertaking prospecting operations and preparation of geological reports for Coal and Lignite Mines, and
  - (ii) Mining Plan Preparing Agency (MPPA) for preparation of mining plan (for Coal, Lignite Mines and Sand for Stowing)
- 3.4. The Quality Council of India (QCI) or National Accreditation Board for Education and Training (NABET)shall grant accreditation in accordance with such standards and procedures as speci fled in schedule VI of Mineral Concession (Amendment) Rule 2020.
- 3.5. Qualified Agency (QP) or Mining Plan Preparing Agency (MPPA) who prepares mining plan for a block/mine, shall have recognition from the concerned company board that the qualification of the QP or accreditation of the MPPA has been duly verified and is in line with the relevant provision of the MCR 1960.
- 4 Submission, Processing and Scrutiny of Mining Plan
- 4.1 On and from the date of publication of order and upto the min' of period of nine months from the commencement of the Mineral Concession (Amendment) Rules. 2020, every mining plan submitted for approval/modification shall be accompanied with a non-refundable application fee specified from time to time in this regard, for the project area specified in the mining plan.
- 4.2 On and from the expire of period of nine months from the commencement of the Mineral Concession (Amendment) Rules, 2020, every mining plan submitted for approval/modification

shall be accompanied with a non-refundable application fee specified from time to time in this regard, for the project area specified in the mining plan and peer/expert review done by any accredited mining plan preparing or reviewing agency at their (applicant's) own cost. During examination of the Mining Plan by the internal committee of MoC, if it is felt that a review by expert or by specialized agency is required, the committee may recommend referring the mining plan to such expert/agency with the approval of the MP approving authority. Charges for the expert review shall be borne by the applicant.

- All pages (including cover page, plates and Annexures) shall bear the signature & stamp furnishing details of the QP/Accredited Mining Plan preparing Agency (MPPA) in physical mode of submission and e-signature/digital signature during the online system of submission.
- 4.4 Ministry of Coal is in process of development of on-line portal for submission and approval of mining plan, system of acceptance of Physical copy shall be continued till the development/operationalization of online portal for submission and approval of mining plan.

## 4.4.1 Submission to Physical Copy Mining Plan to Ministry of Coal:

- 4.4.1.1 The project proponent shall submit one soft copy and four hard copies of Mining Plan (draft)-one each to the concerned Administrative Section of the Ministry of Coal for the concerned block, Section of MoC/CCO dealing with approval of Mining plan. Coal Controller, CMPDIL/ Extended office of CCO & the dispatch receipt of the speed post (confirming that the draft Mining Plan has been sent). The contact details and correspondence address of the section dealing with the approval of Mining plan, administrative section for the mine, members of the committee etc. shall be updated time to time, on the website of the Ministry of Coal/Coal Controller Organisation.
- 4.4.1.2 The project proponent shall incorporate the observation (if any) and submit the mining plan (after incorporating the compliance to the observation) to section of MoC/CCO dealing with approval of Mining plan, concerned administrative section of the Ministry of Coal, Coal Controller and CMPDIL/Extended office of CCO.
- 4.4.1.3 Submission of Mining Plan (after incorporating compliance) to Ministry of Coal: The project proponent shall submit 04 (Four) hard copies & 01 (one) soft copy of modified Mining Plan and the compliance to the observations along with copy of the dispatch receipt of the Speed Post (confirming that the modified Mining Plan has been sent to section of MoC/CCO dealing with approval of Mining Plan, concerned administrative section of the Ministry of Coal, Coal Controller, and CMPDIL/Extended office of CCO).
- 4.4.1.4 The procedure of submission at Para 4.3.1 will be replaced by process of submission at para 4.3.2 on development of portal for online submission and approval of Mining Plan.

# 4.4.2 Online System of Submission of Mining Plan for Approval:

- 4.4.2.1 Project proponent shall register online, using registered official mail ID.
- 4.4.2.2 For the purpose of preparation of Mining plan through a QP or MPPA, project proponent shall share a temporary login with QP/MPPA. This temporary login shall be valid till the preparation and approval of mining plan only.
- 4.4.2.3 The QP/MPPA shall upload the Mining plan through the temporary login and submit it to the project proponent; QP/MPPA once submits the mining plan to the project proponent, he shall not be able to modify.
- 4.4.2.4 The Project Proponent shall make payment of processing charges/fees online as specified from time to time by Ministry of Coal;
- 4.4.2.5 The Project Proponent shall after incorporating relevant company board approvals submit the mining plan to the Approving Authority; The mining plan submitted to approving authority shall become visible to Administrative Section for the respective block, section of MoC/CCO dealing

with approval of Mining plan, members of the Internal Committee, Coal Controller, CMPDIL/Extended office of CCO, simultaneously. System of SMS alerts shall be available at all stages;

- 4.4.2.6 Observations of the Committee Members shall be uploaded online and the project proponent shall al so submit Mining Plan, after incorporating compliance, online
- 5 Scrutiny & Processing of Mining Plan
- 5.1.1 The current system of getting the mining plan scrutinized through CMPDI, Ranchi shall continue. Ministry of Coal is in process of creating an extended office of Coal Controller Organization at Delhi which shall be delegated with the work of processing and scrutiny of mining Plan. A letter to this effect shall be issued separately.
- 5.1.2 CMPDIL/Extended office of CCO at Delhi shall scrutinize the mining plan and submit comments to section of MoC/CCO dealing with approval of Mining plan within Fifteen (15) days of receipt of the Mining Plan. Non-submission of comments within the stipulated time may be presumed as "no comment" from CMPDIL/Extended office of CCO; CMPDIL/ Extended office of CCO at Delhi, if consider necessary to make a physical verification of the site/site visit for scrutiny of the mining plan, may make such site visit/physical verification of the site, however, no relaxation in the time line as specified above may be given.
- 5.1.3 Administrative Section of the Ministry of Coal (dealing with the block) shall scrutinize the mining plan with respect to Vesting order/ allotment order and CMDPA signed with allottee at the time of allotment and submit observations to section of MoC/CCO dealing with approval of Mining plan (till the development of portal for Mining plan approval) within Fifteen (15) days of receipt of the Mining Plan. Non-submission of comments within the stipulated time may be presumed as "no comment" from the administrative section;
- 5.1.4 Members of the Internal Committee shall examine the mining plan from Technical and administrative angle based on the observations of the Administrative Section (dealing with the respective block) and CMPDIL/Extended office of CCO and the peer/expert review report submitted with the mining plan and submit observations to section of MoC/CCO dealing with approval of Mining plan (till the development of portal for Mining plan approval) within Fifteen (15) days of receipt of the Mining Plan. Non-submission of comments within the stipulated time may be presumed as "no comment" from the administrative section. Members of the internal committee, CMPDIL/Extended office of CCO may raise observation twice only. The observation raised shall be communicated directly to the project proponent for incorporating the same in the mining plan. The project proponent shall make presentation in the meeting of the internal committee for scrutiny.
- 5.1.5 Section of MoC/CCO dealing with approval of Mining plan shall communicate the observation (if any) to the project proponent for compliance till the development of online system for submission, processing, and approval of mining plan.
- 5.1.6 Subsequent, to development of online portal for submission, processing, and approval the observations of the internal committee members shall be uploaded directly on the portal, which will be visible to the project proponent, A timeline of 15 days shall be available for the internal committee members to upload the comments. Non-submission of comments within the stipulated time may be presumed as "no comment".
- 6 Timeline for submission of Compliance:

Once the observation of the Scrutiny of the mining plan is communicated either in hard copy, mail or online, the Project Proponent is required to submit the mining plan after incorporating the compliance to the observation within a period of 15 days of the communication, failing which the mining plan submitted for approval shall be rejected.

Provided that any such application may be entertained after the said period of 15 Days, if the applicant satisfies the approving authority that he had sufficient cause for non-submission of mining plan (after incorporating the compliance) in time. However, in any case this period may not be extended beyond 30 days from the date of receipt of communication of the observation.

### 7 Approving Authority:

- On and from the date of publication of order and up to the expiry of period of nine months from the commencement of the Mineral Concession (Amendment) Rules, 2020, the powers to approve mining plan for all categories of coal and lignite mines and sand for stowing shall be exercisable by Project Adviser, Ministry of Coal.
- On and from the expiry of period of nine months from the commencement of the Mineral Concession (Amendment) Rules, 2020, the power to approve mining plan for all categories of coal and lignite mines including sand for stowing shall be exercisable by the Coal Controller, CCO, Kolkata, a subordinate office of Government of India in the Ministry of Coal.
- 7.3 The person delegated to approval of Mining Plan under sub-section (1) of section 26 read with clause (b) of sub-section (2) of section 5 of the Mines and Minerals (Development and Regulation) Act, 1957 (67 of 1957) (hereinafter, the 'Act') may seek help of an Internal committee constituted for the purpose.
- 7.4 The approving authority shall dispose of the application for approval of the Mining Plans within a period of 30 days from the date of receiving of such application (The Mining Plan received on or before 30th of Current Month will be considered in the ensuing meeting). Provided that the aforesaid period of 30 days shall be applicable only if the Mining Plan is complete in all respect, and in case of any modifications subsequently suggested after the initial submission of the Mining Plan for approval, the said period shall be applicable from the date on which modified mining plan is re-submitted.

### 8 Internal Committee for Scrutiny of Mining Plan:

- Members of the Internal Committee shall examine the mining plan from Technical and administrative angle based on the observations of the Administrative Section dealing with the respective block & CMPDIL/ Extended office of CCO.
- 8.2 The internal committee shall recommend the mining plan for "Approval" or "Rejection". In case of recommendation for Rejection, the committee shall record the reason for Rejection.
- 8.3 Till the opening of CCO office at Delhi, the internal committee shall consist of:
  - 1. Director (Technical), MoC, Member Secretary
  - Director/ Deputy Secretary. MoC of the section dealing with the allocation/allotment of the respective block, Member
  - 3. Coal Controller or his representative, Member
  - 4. Director level officer of CMPDIL, Member
  - 5. Director/Deputy Secretary, Nominated Authority, Member
- 8.4 After opening of CCO office at Delhi. the internal committee shall consist of:
  - 1. Director level officer of CCO having relevant working experience., Member
  - 2. Director/ Deputy Secretary of the section dealing with the respective block, Member
  - 3. Head of Regional Coal Controller Office (having relevant working experience in mine planning). CCO Regional Office New Delhi, Member Secretary
  - Any other technical person having working experience of not less than 15 (fifteen) years in mine planning, Member

## 9 Communication of Approval:

9.1 In case of allotted/auctioned mine, section dealing with approval of Mining Plan shall communicate the decision of the approving authority within a period of 5 (five) working days in form of a letter confirming "in-principle approval" of the Mining Plan to the project proponent

with a copy of the same to the Nominated Authority, Govt. of India. Final approval of the Mining Plan in such cases shall be communicated by the section dealing with approval of Mining Plan, only on receipt of applicable payments and its confirmation from the Nominated Authority, Govt. of India.

- 9.2 While for mines other than auctioned/allotted mines, section dealing with approval of Mining Plan shall communicate the decision of the approving authority within a period of 5 working days.
- 10 Revision:
- 10.1 Any person aggrieved by any order made or direction issued in respect of mining plan by an officer competent to approval mining plans shall within 30 days of the communication of such order or direction, apply to the Secretary (Coal). Ministry of Coal for a revision of such order or direction thereon.
- On receipt of any application for revision the authority shall give the aggrieved person a reasonable opportunity of being heard and may within 30 days confirm, modify or set aside the order or direction and his decision thereon shall be final.
- This Guideline supersedes the previous orders and are without any prejudice to any other relevant rules and regulations, such as those issued by the State Governments, Ministry of Environment, Forest and Climate Change, Ministry of Labour and Employment, etc.

(Hitlar Singh)

Under Secretary to the Government of India

To,

All the existing Coal and Lignite block allocates

Copy to: -

- 1. All Joint Secretaries, MoC.
- 2. Coal Controller. Coal Controller's Office, 1- Council House Street, Kolkata.
- 3. CMD, CIL, Newtown, Rajarhat, Kolkata-700156, W.B
- 4. CMD, NLCIL, Cuddlore, Distt. Neyveli-607801 (Tamil Nadu).
- 5. CMD, Singareni Collieries Company Limited (SCCL), Kothagudem Collieries, Khammam Distt.(A.P).
- 6. Tech. Director (NIC) with the request to place it to Website of the Ministry of Coal.

Northern Coaltielos Linne-Annexure-VII गार्वर्ग कोलफीत्स्य लिमिटेड Black-B Project, P.O. Gorbi भूक भाग भग कामाः स्ताक-धी परियोजना पो -गोरधी भूकान्यभगातः १००० १००० भूकान्यभा १००० भूकान्यभा अस्ताः भूकान्यभा १००० भूकान्यभा अस्ताः Discussion by seef off steel way a contract of the contract of A t Sees Carning Campanet ¢,,, > 0 5014941 Dated: 23,10 2022 No.: NCL/BLOCK-B/GM/2022/ 1,21.2 To The Regional Director, CMPDIL, RI-VI, Jayant Ref: E office no e-841895, NCL/BB/GM/PP/FC, dt-25/0/2022 Sub.: Submission of required plan showing land details Enclosed find herewith copy of signed Plan as desired in above referred e-office. Dear Sir This is for needful at your end. Yours faithfully General Manager Block-B Project Encl:As above. 1100 ( W. wild) खान यांजना विभाग पंजियन संख्या. 52.91 दिनाक 01/11/2022

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