

No.13016/31/2010-CA-I

Government of India

Ministry of Coal

New Delhi, dated 27<sup>th</sup> December, 2012

To  
The Project Manager (Coal),  
M/s National Mineral Development Corporation,  
(A Govt. of India Enterprise),  
Khanij Bhavan, 10-3-311/A,  
Castle Hills, Masab Tank,  
Hyderabad-500173.

Subject : Approval of Mining Plan (December, 2011) including Mine Closure Plan for **Shahpur East** coal block of Sohagpur Coalfields, District Shahdol & Umaria (Madhya Pradesh) to M/s National Mineral Development Corporation Ltd. (NDMC).

Sir,

I am directed to refer to your letter No.NMDC/Coal Division/Shahpur/Coal/2010/45 dated 31.05.2010 on the above subject and to state that the Mining Plan (December, 2011) including Mine Closure Plan for **Shahpur East** coal block of Sohagpur Coalfields, District Shahdol & Umaria (Madhya Pradesh) to be read alongwith company's letter dated 16.12.2011 submitted by M/s National Mineral Development Corporation Ltd. (NDMC), has been considered and the approval of the Central Government thereon is hereby conveyed under Section 5 (2) (b) of the Mines & Minerals (Development & Regulation) Act, 1957 subject to the following condition :-

- i) The mining company shall take all necessary precautions regarding safety of mine workings, persons deployed therein.
  - ii) Mining Lease to be acquired shall not encroach into any other coal block.
  - iii) The approval of the mining plan is without prejudice to the requirement of approvals from competent/prescribed authority under the relevant rules/regulations etc.
2. Two copies of the approved mining plans and mine closure plans duly signed by the competent authority are returned herewith with the request that a copy of the approved mining plan and mine closure plan may be submitted to the concerned State Government for necessary action and also a photocopy of the approved mining plan and mine closure plan may be sent to the Coal Controller for monitoring the block.

Yours faithfully,



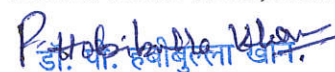
( A. Sanjay Sahay )

Under Secretary to the Govt. of India.

Encls. As above.

Copy to the following for information and record:-

1. Under Secretary, CPAM Section, Ministry of Coal.
2. The Coal Controller, Office of the Coal Controller, 1, Council House Street, Kolkata.

  
Dr. P. HABIBULLA KHAN  
संयुक्त महाप्रबन्धक (भू-विज्ञान)  
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NMDC Limited, Hyderabad.



No. NMDC/Coal/Shahpur/2010 / 2050

Dated 14.12.2011

16

To,

The Under Secretary C P A M  
Ministry of Coal,  
Shastry Bhawan  
New Delhi - 110001

Kind Attn: - S.O (CPAM)

Sub: Submission of corrected final Mining Plan of Shahpur East Coal Block, Shahdol & Umari district, MP to MoC, for approval.

Ref: 1) Presentation of Shahpur East coal Block held on 29.04.2011

2) Govt. of India, Ministry of Coal Letter No.34011/26/2011-CPAM, Dtd 13/05/2011

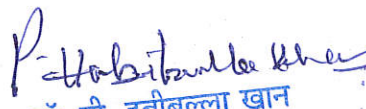
Dear Sir,

On the subject and reference above, it is to inform that, we have incorporated all the suggestions of Standing committee of Coal in the revised Mine Plan of Shahpur East Coal Block and is being submitted in 4 copies each ( text and plates) for approval. We are also enclosing NMDC's Board resolutions on Escrow amount towards Mine Closure Plan as per guide lines of MoC.


We request you to kindly approve the above Mine plan at the earliest so as to adhere to the Mile stone chart of MoC.

Kindly acknowledge the receipt of the above.

Thanking You,

  
डॉ. पी. हबीबुल्ला खान  
**Dr. P. HABIBULLA KHAN**  
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NMDC Limited, Hyderabad.

Yours faithfully

  
(D.P.Selvam)

Jt. General Manager (Inv.)

Encl: 4 copies of revised Mining Plan of Shahpur East Coal block - Text & Plates.



**Compliance to Suggestions of Technical members of the Standing Committee  
of Mining Plan of Shahpur East Coal Block vide letter No. 34011/26/2011-CPAM  
dt 19-05-2011**

Sl. No.	Suggestions made by MOC	Compliance of NMDC
1	RQP should explain the reasons for delay in submission of mining plan.	ML application for Shahpur East coal block was submitted on 14.12.2009 based on the draft Geological Report received from MECL, Nagpur. Work order was issued on 05.12.2009 to M/s Min Mec Consultancy Pvt. Ltd, New Delhi for preparation of Mining Plan. Later, it was found that area of Shahpur East and Shahpur West block are not matching in the surface plan & text parts of draft GR as per the allotted area by MoC. After incorporating the suggestions and comments from NMDC, MECL submitted final GR on 26.03.2010. The same was conveyed to M/s Min Mec, New Delhi for preparation of Mining Plan & M/s Min Mec has prepared the draft Mine Plan & submitted to MoC on 07.06.2010. In view of above there was slight delay in submitting the draft Mining Plan.
2	Certificate from empowered representative of/ or Block Allottee/Applicant that the mine will be developed as per the approved Mining Plan from Ministry of Coal and all other approvals, as required, will be obtained from relevant authorities	The approval of Board of Directors is attached as Annexure A-3
3	As per the certificate given by the Block Allottee, the plan has been prepared under the supervision of RQP. This is not acceptable, since the Mining Plan has to be prepared by the RQP	The correct certificate is now enclosed as Annexure- A-7
4	Forwarding letters from various authorities from whom land records, Maps and other details have been obtained should be enclosed	<ul style="list-style-type: none"> <li>Land record have been obtained from Collector's office, Shahdol and attached at Annexure 3-1 along with letter Sl. No./19/khanij/2011/427 dt 28-03-2011</li> <li>CMPDIL, Ranchi has provided coordinates of the block &amp; Geological map and has certified the same (Annexure -3-2)</li> </ul>
5	A copy of the relevant plan from the Geological Report showing the allotted block boundary should be incorporated	<ul style="list-style-type: none"> <li>Geological map of Sohagpur Coal Field and block boundary of Shahpur East and Shahpur West Coal Block map provided by MECL and a photocopy is attached as Plate-XXII.</li> </ul>
6	RQP should certify that the required leasehold area as per mining plan is within the allotted	Certificate is attached as Annexure A-5.

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अवर सचिव / Under Secretary  
कोयला मंत्रालय / Ministry of Coal  
भारत सरकार / Govt. of India  
नई दिल्ली / New Delhi

B.D.SHARMA  
RQP

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Sl. No.	Suggestions made by MOC	Compliance of NMDC
	block boundary	
7	RQP should enclose a certificate that the block boundary adopted in the mining plan is in conformity with that provided by CMPDIL and they are not extending into any other adjacent block	Certificate is attached as Annexure 1-5.
8	RQP to certify that the area required for colony is non coal bearing	It is mentioned in Chapter-12 under para 12.1.5 of mining Plan that the colony will be out side the block area. The area for the colony has not yet been selected hence certification is not relevant.
9	The name of the villages and total area of respective villages as shown in Table 3.1 are not same, as per land schedules attached as Annexure 3-1	The name of the villages and total area of respective villages as shown in Table 3.1 are now matching with land schedules attached as Annexure 3-1
10	Quantum of work done by various agencies MECL/CMDPI and other agencies, if any, on the following should be mentioned a) Survey and Mapping b) Drilling c) Coal Sampling d) Core Logging e) Proximate Analysis/ Ultimate Analysis f) Washability Data Generation g) Geo-physical Logging h) Petro-graphic analysis	a) Survey and Mapping covered under para 4.1.1 and 4.1.2 b) The details of drilling covered under para 4.1.1. c) The details of sampling are provided under para 4.1.1 in chapter-4 d) The details of core logging covered under para 4.1.1. e) Proximate analysis is given in Table 4.7. and the ultimate analyses of seams is given in Table 4.13. The ash analysis is given in Table 4.14. f) No washability tests have been conducted g) The details of Geo-physical logging covered under para 4.1.1. h) No Petro-graphic analysis has been carried out
11	Details of individual Boreholes and those adopted for reserve calculation, cross sections etc. should be furnished	The details of all the individual bore holes are now given in Plate No.-VII. All the bore holes have been used for reserve calculation. The geological cross sections are given in Plate-VI

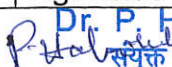
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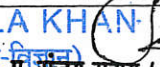
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12	Executive Summary - Para E(b) - Explain the basis of fixing mine capacity at 0.7 MTPA against CMPDI's assessment of 0.24 MTPA.	<p>As per the allotment order, capacity of the mine was fixed 0.24 MTPA based on 42 MT of geological resource (regional exploration). After detailed exploration conducted by MECL, Nagpur, the proved Geological Reserve is 63.363 MT, hence the production capacity has been revised to 0.70 MTPA. Additional justification is given below.</p> <p><b>Need of Coal for Nation</b> The Indian coal industries are facing shortage of supply of coal against the domestic demand. According to planning commission's estimation, the demand for coal in the country is expected to be 713 million tons per annum in 2011-12 whereas the production is expected to be 630 million tons by 2011-12, thus leaving a shortage of about 83 million tons. This demand-supply mismatch is likely to widen drastically would be around 300 MT by the end of the XII five year Plan. In view of result of above scenario, NMDC is trying to bridge this gap through increase in capacity of upcoming coal project.</p> <p>This has been now incorporated under para E(b) of Executive Summary.</p>
14	Executive Summary - Para G(f) - mentions that no land degradation is expected but subsidence may cause land damage.	The subsidence report prepared by BHU indicates that there will be no subsidence in the Shahpur East Coal block as can cause any damage to the surface structures/ areas (subsidence report is enclosed as Annexure:14-1).
15	Executive Summary - Para I(a) : Base date of Mining Plan is shown as July 2011 plus time taken for Exploration. As no exploration is required, so, why exploration is referenced	Base date of Mining plan is May, 2010. Now the relevant correction has been done in para I(a)
16	Executive Summary - Para I(c) Relevant investigation will be subsidence studies & Hydrological investigation etc.	<p>The following studies have been conducted:</p> <ol style="list-style-type: none"> <li>1. Subsidence study by BHU for Shahpur East and Shahpur west Coal block (refer Annexure: 14-1).</li> <li>2. Hydrological study prepared by RAMKY Enviro Engineers Ltd, Hyderabad.</li> </ol> <p>The same have been included in Executive Summary under para I(c) and also attached as Annexure 8-1 and 13-1 respectively.</p>
17	Agencies like CIMFR or ISM	This has been examined by BHU in their

  
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	should be engaged for examining the possibility of development of the seam as final operation below village.	subsidence study as per the report. Sufficient pillars have been left under the villages and there will be no danger to the villages (refer Annexure: 14-1).
18	South Boundary shown in Table 4.15 as 'Block Boundary supplied by NMDC.....' Details regarding basis of southern boundary with certificate is to be furnished	The Southern boundary of Shahpur East block is as provided by CMPDIL (Certificate attached in the form of letter as Annexure 3-2 by CMPDIL). It is a straight line Joining two points having co-ordinates: Lat 23° 14' 21", Long 81° 18' 48" and Lat 23° 14' 21", Long 81° 20' 28"
19	Details regarding adoption of different workable thickness for superior and inferior grades should be furnished.	The Mining Plan has considered the minimum thickness of 1.2m for mining irrespective of the grade of coal which is mostly in the grade range of C to E (refer para 5.5 & Table 5.3 of mining plan in Chapter 5)
20	Cost benefit analysis of Road and Nallah diversion to release 2.29 MT and 4.55 MT of reserves should be done. Study on straitening of Nallah to get more reserves should also be made.	There was error in the blocked reserves figures. The coal reserves blocked under road with barriers and river/nala with barriers is 1.476 MT and 1.45 MT respectively. This correction has been incorporated below the Table 4.20. Further the diversion of roads has not been found justified as they are serving as interconnection between the villages located within the block, rehabilitation of which (villages) has not been proposed by the company. However, the diversion of Ghinachuhia nala has been studied and has been found beneficial and therefore, has been proposed to be straightened. Both the above points have been covered under para 3.6.1.4 at page 3-4.
21	Total reserves shown as 63.363 MT in Table 4.20 while It has been shown as 53.065 MT in Executive summary at para D(o). It needs explanation	The total reserves shown as 63.363 MT in Table 4.20 are correct. This has also been now incorporated in Executive Summary at para D (o).
22	In para 5.21, decision on not working certain seams on quality ground not correct. Provide for change depending upon economics.	Out of 8 seams, 3 seams (III L, I and L1) are not workable as the thickness is less than 1 m. For clarifying the same, a new Table 5.1A has been introduced in chapter V.
23	Possibility of working with continuous Miners for the entire workable property should be examined. Also considering the suitable geo-mining condition viz flat gradient	The possibility of using continuous miners over the whole property as well as possibility of working the mine with Longwall Technology has been examined (Refer Annexure 4.1). After examination, it has been thought proper to stick to continuous miners for about 60% of the production

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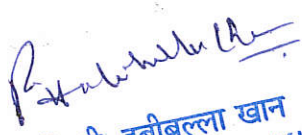
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	and devoid of structural disturbances etc, possibility of working the mine with longwall technology should also be examined?	and to LHD/SDL for the rest about 40%. The Longwall method has not been proposed as explained in the mentioned annexure.
24	Floor sticking (Refer Para 5.8 - Sequence of Mining) may give better results. It should be examined.	We concede to the suggestion that working along the floor of bottom seam under the existing seam configuration will give better results. Earlier, as most of the bottom seam area appeared to be thin, the development along the floor of the top seam (IIIA) was proposed. However, the re-examination revealed that it is possible to work in some limited areas through the floor of the bottom seam and extract the top coal while retreating. Plate No. XIC indicates the entry into the bottom seam at point "328 mRL" and development of the bottom seam in that area.  The top seam will be worked while undertaking depillaring at retreating stage.
25	With one continuous Miner and 3 LHDs, how many districts would be worked & how the working' in different seams shall be synchronized should be explained   <b>डॉ. पी. हबीबुल्ला खान</b> <b>Dr. P. HABIBULLA KHAN</b> संयुक्त महाप्रबन्धक (भू-विज्ञान) Joint General Manager (Geology) एनएमडीसी लिमिटेड, हैदराबाद. NMDC Limited, Hyderabad.	<b>i. Total number of equipment:</b> There will be one Continuous Miner and 6 LHDs in the mine.  <b>ii. Number of districts to be worked:</b> Three districts will be operational at a time in which one district will be equipped with Continuous Miner and the rest two districts with 3 LHDs each.  <b>iii. Synchronisation of working in different seams:</b> One district will deploy 3 LHDs and one district will be operational in each of the upper 2 seams simultaneously. The uppermost 2 seams (Seam-IV and Seam-L2) are proposed to be worked with semi-mechanised method using SDL/LHDs. The Continuous Miner is proposed to be used in next 2 lower seams viz. Seam-III (contiguous seams Seam-IIIA and Seam-IIIB) and in Seam-II in sequence. The sequence is explained in Para 5.8
26	Write-up on lighting in Chapter-7 should be given.	The general lighting arrangements are now covered in Para 7.5.
27	Possibility of providing Railway siding instead of Road Transport (Refer Para 11.3) should be explored	Shahdol railway station is about 12 km by road (about 4 km aerial) and NMDC will approach the South Eastern Railway to provide the siding at the pit head as they will earn lot of revenue on long term basis.
28	Socio- Economic survey covers	The Socio- Economic survey now also covers the

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Sl. No.	Suggestions made by MOC	Compliance of NMDC
	the district. Villages within the block should be focused.	Villages within the block (refer para 14.2.7.A in Chapter 14)
	<b>Mine Closure Plan</b>	
29	The heading of the plan should be changed from Progressive Closure Plan	The heading has been now changed as suggested
30	The proposed land use (quarry area, external dump, mine infrastructure, nalla embankment, safety barrier etc.) should be incorporated in para 14.1.3	The required details are provided in Table 13.2 and 15.13
31	Reasons for mine closure is not detailed in para 14.1.4. (Refer Para 1.1 of MCP guidelines)	It is now incorporated in respective para 15.1.4 as per MCP guidelines.
32	List of the Statutory obligations to be complied with as per clearances already received, should be furnished. List of other statutory clearances which are still to come, should also be furnished with the confirmation that the obligations imposed therein will be complied with	It is now incorporated in respective para 15.1.5 as per MCP guidelines
33	The approval of the Board of Directors of the mining company on the decision on mine closure should be furnished. (Para 1.3 of MCP guidelines)	Copy of NMDC's Board Resolution is now enclosed as Annexure A-3
34	It should be clarified if the survey of the Block has been connected to National Grid	Yes, the details are mentioned in Chapter 4, under para 4.1.2
35	Report on hydro-geological study carried out with impact of mining on present water quality & mitigative measures are to be furnished.	Report hydrological study is enclosed as Annexure 8 -1
36	Total life of the project should also include the construction period of one year	It is now mentioned under para 5.14
37	The list of facilities which will be dismantled and those which will be retained should be furnished.	The facilities retained will be Office space, Canteen, dispensary, VT centre and essential quarters. Other all facilities will be dismantled. All the details along with Corpus fund have been provided in para 15.7.9.
38	All the details of dismantling and disposal of infrastructure viz. power line, telephone cables, transport infrastructure (road, rail)	Details are now incorporated in 15.7.9 and Annexure 15-1


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	bridges etc.) to be furnished.	
39	<p>Manpower retrenchment, compensation to be given, socio-economic repercussions and remedial measures consequent to the closure of mines should be described, specifically stating the following:</p> <p>i Number of local residents employed in the mine, status of the continuation of family occupation and scope of joining the occupation back. Compensation given or to be given to the employees concerning their sustenance and their family members. Satellite occupations connected to the mining industry - number of persons engaged therein - continuance of such business after mine closure. Continued engagement of employees in the rehabilitated status of mining lease area and any other remnant activities. Envisaged expectation of the society on closure of mine</p>	<p>The proposed project will generate employment for 725 (UG) people and also indirect employment. They will be trained as per job requirement. The area being a mining intensive, a large employment opportunity will be available to local people. About half of the employees will be from out side. They will be staying in the company colony near the ML area. Detailed activities under the programme for local people with education, skill development &amp; training programme under CSR plan will be formulated and a copy of the same will be submitted to MOC.</p> <p>All the people will be retrenched and the compensation will be paid in line with the applicable Rules of the State Govt.</p> <p>It may be noted that only 16.15 hac area will be acquired out of total ML area of 693 ha, hence the occupation of the local people will not be disturbed and the same will continued to be adopted by the local people after closure of the mine.</p> <p>This matter has been mentioned under para 15.7.7 (Chapter 15)</p>
40	Details of time schedule for all activities relating to final closure should be described. The schedule of such operations should also be supplemented by bar charts	It is covered in Annexure 15.1
41	The manpower and other resources required for completion of the proposed abandonment operations should be described	It is covered in Annexure 15.1
42	The base cost of first year is calculated as (Mine area x 6)/25 - it should be divided by life of mine as per recent guidelines.	The base cost for the first year is calculated @ Rs. 1.00 lac per hectare for underground mining. The rate as suggested Rs. 6 lacs is applicable for open cast mining hence, has not been adopted.

  
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