

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

ShastriBhawan, New Delhi
The 16th December 2019

To,

All the existing Coal and Lignite block allocates

Subject: Guidelines for preparation of Mining plan for the coal and lignite blocks

Sir,

I am directed to inform 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 these modified guidelines enumerated in Appendix.

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.
 - 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 approving authority and such approval of the modified mining plan shall remain valid for the balance duration of the mining mine. Modification of the approved mining plan during the operation of a mining lease also requires prior approval.
 - 1.2. The mining plan will have to be prepared in phases. The Stage plan for 1st year, 3rd year, 5th year, year of achieving Peak rated capacity, 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 get the mining plan updated by authorized person/agency and submit to competent authority for review at least 180 (one hundred eighty) days before the expiry of 5 (five) year. Non submission of updated Mining Plan for review during the stipulated time may result in cancellation of the approved mining plan.
 - 1.3. The mining plan shall only be modified **a.**for change in mining method; **b.**for changes in the business environment; **c.** for facilitating increase in production capacity; **d.** change in lease area; **e.** in the interest of safe and scientific mining; **f.** conservation of minerals; & **g.** for the protection of environment. For other minor changes (including any change in land type) in the mining plan approval of the respective Company board shall suffice. While submission of revision/ modification of mining plan the reason for revision shall be specified in writing by the lessee.
 - 1.4. The Mining Plan submitted for approval shall have 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 lease area in the Mining Plan shall include the Coal Bearing Area, Mine entries, area required for overburden dump and other mining related infrastructure. Evacuation route 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 and if the project area is confined within the allotted block boundary, a certificate to this effect is to be provided by the authorized person/agency preparing the mining plan. The certificate must be made on the Conceptual Plan depicting Geo-reference Co-ordinates (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 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 to rule out the issue of encroachment and use of coal bearing area (beyond the vested/ allotted block boundary) in the mining plan. 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 geo-reference 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, 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 auctioned/ allotted blocks, the peak rated capacity of the Mining Plan shall not be less than the peak rated capacity defined in the Coal Mine Development & Production Agreement (CMDPA)/ Allotment Agreement.
- 1.11. The approval of the revised Mining Plan shall not result in changes in the terms and conditions as well as efficiency parameters mentioned in the CMDPA/Allotment Agreement signed at the time of allotment/ vesting for the auctioned/ allotted blocks.
- 1.12. The project proponent shall envisage the action plan for exploration and liquidation of the balance reserve which is 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.
- 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 (MoEFCC), Central and State Pollution Control Boards, 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 condition as far as practicable.
 - 2.1. Mining is to be carried out in a phased manner along with reclamation and afforestation work in the mined out area.
 - 2.2. 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 being carried out specifically for closure of the mine, the same shall be included in the list of activities to be taken up for mine closure.
 - 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 for 3 years, supervision charges for 3 years, power cost, protective and rehabilitation measures including their maintenance and monitoring, miscellaneous charges etc.
 - 2.6. **Escrow Account Calculation:** In August 2009 it was estimated that typically closure cost for an opencast mine comes around rupees six lakhs per hectare of the total project area and it would be 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: $\{(Rs\ 6\ lakhs \times 1.561\ linking\ factor\ for\ base\ year\ 2004-05 \times WPI\ 121.7\ as\ on\ April\ 2019) / (WPI\ as\ on\ August\ 2009)\} = Rupees\ 8.79\ lakh, rounded\ to\ Rupees\ 9\ (nine)\ lakhs\ per\ hectare\ in\ case\ of\ Opencast\ project].$

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 be Rs 100, in the second year $100 \times (1+5\%)^1$, in the third year $100 \times (1+5\%)^2$ 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.

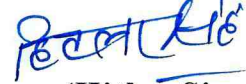
- 2.7. **Financial Assurance:** The Mining Company/ Mine Owner as a part of Financial Assurance will open a Fixed Deposit Escrow account, with the Coal Controller Organization (on behalf of the Central Government) as exclusive beneficiary prior to commencement of any activities on the land/ project area 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.
- 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 notified 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 three years of final closure period.
- 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 1st July of every year setting forth the extent of protective and rehabilitative works carried out 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 to be deposited in accordance with Para 2.6 & 2.7, 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. **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.

Yours faithfully,



(Hitlar Singh)

Under Secretary to the Government of India

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.

DETAILS TO BE FURNISHED IN THE MINING PLANS FOR COAL/LIGNITE BLOCKS

A. Cover Page

The Cover page should contain the following information:

- (i) Name of the Mining Plan
- (ii) Indication, if it is a Modified Mining plan seeking approval under Rule 22 A(2) of MCR 1960, it should be marked as **“Modified Mining Plan with Modification No”** i.e. First Modification, Second Modification etc.
- (iii) Name of the Coal/Lignite Block area (Acre/Hectare/Sq. Km.)
- (iv) Name of the Coalfield and its location i.e. District and State
- (v) Name and address of the Applicant
- (vi) Targeted capacity
- (vii) Name of the authorised person/agency preparing the mining plan with details

B. Index of Chapters of the Mining Plan (Including Mine Closure Plan) / Mine Closure Plan or Final Mine Closure Plan

<i>Sl No.</i>	<i>Chapters</i>	<i>Page No</i>
1	Checklist	
2	Project Information	
3	Exploration, Geology, Seam Sequence, Coal Quality and Reserve	
4	Mining	
5	Safety Management	
6	Infrastructure Facilities proposed and their Location	
7	Land Requirement	
8	Environment Management	
9	Progressive & Final Mine Closure Plan	

C. Index for List of Annexure

D. Index of List of Plans/ Drawing Attached enclosed as Plates

E. List of Abbreviations used.

- (viii) All Plans must be coloured distinctly with proper legends.

CHECKLIST

<i>Details</i>		(✓ / ✗)
Text	Project Information	
Text	Exploration, Geology, Seam Sequence, Coal Quality and Reserve	
Text	Mining	
Text	Safety Management	
Text	Infrastructure Facilities proposed and their Location	
Text	Land Requirement	
Text	Environment Management	
Text	Progressive & Final Mine Closure Plan	
Annexure	Copy of allotment order /Vesting order.	
Annexure	<p>Certificate of authorised person/agency if the project area is confined within the vested/allotted block boundary and</p> <p>Where the project area extends beyond the block boundary, a certificate of authorised person/agency 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 to rule out the issue of encroachment and use of coal bearing area (beyond the vested/allotted block boundary) in the mining plan</p>	
Annexure	Approval of the Company Board	
Annexure	Copy of earlier approval of mining plan.	
Annexure	Plan / chart showing schedule of Implementation of Mine closure activities (progressive and final closure) with duration of important activities	
Annexure	Other document (if any)	
Plates	Location plan	
Plates	Plan certified by authorised person/agency if the project area is confined within the vested/allotted block boundary and where the project area extends beyond the block boundary, a Plan certified by authorised person/agency should be supported with a plan with geo-reference co-	

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<i>Details</i>		(✓ / ✗)
	ordinates duly certified by the Mines and Geology Department of the concerned State Government. Plan in support of Annexure - II	
Plates	KML file of the proposed lease area, project area and geological block.	
Plates	Plan showing approved block boundary vis-à-vis proposed/ existing mining lease & Mine boundary superimposed over it in distinct colour.	
Plates	Geological plan showing all the boreholes drilled and proposed to be drilled showing allotted block boundary and required lease area	
Plates	Representative Graphic Litholog	
Plates	Surface Plan showing drainage system, Contour, preferably at 3 m interval, location of BH (borehole)	
Plates	Conceptual plan showing infrastructure facilities including colony, boundary of mining area, mine entries, roads including road diversion alignment etc.	
Plates	Tentative land use plan showing land type (Govt., forest and tenancy land) with its data source	
Plates	Floor contour plan and seam folio plan, iso-grade plan	
Plates	Cross-section showing coal/lignite seam(s)	
Plates	Plan showing existing and proposed surface layout(s)	
Plates	Plan showing total coal thickness and overburden thickness and stripping ratio (in case of opencast (OC) Mines)	
Plates	Final stage quarry plan showing haul road alignment (in case of OC Mines)	
Plates	Plan showing mode and location of entries and surface layouts (in case of underground (UG) Mines)	
Plates	Layout of the panel for each system (like Longwall, Continuous Miner, Bord & Pillar, road header etc.) should be given (in case of UG Mines)	
Plates	Layout of pillar extraction (in case of UG Mines)	
Plates	Support system (in case of UG Mines)	
Plates	Haulage and transport system (in case of UG Mines)	
Plates	Post mining land use plan	
Plates	Progressive mine closure plan/ stage plans	
Plates	Reclamation plan	

Chapter 1 : Project Information

	<i>Parameters</i>	<i>Details</i>
1.1	INTRODUCTION	
1.1.1	Name of Coal / Lignite Block	
1.1.2	Name of the Coalfield/ Lignite Field	
1.1.3	Base date of Mining Plan/ Mine Closure Plan	
1.1.4	Linked End Use Plant	
1.1.5	Distance of End use plant from the pit head of the project in "km"	
1.1.6	Mode of Coal Transport	

1.2 LOCATION, TOPOGRAPHY AND COMMUNICATION

1.2.1	Location of coal deposit (District and State)	
1.2.2	Communication: PWD roads, railway lines, Air	
1.2.3	Availability of power supply, water etc.	
1.2.4	Prominent physiographic features, drainage pattern, natural water courses, rainfall data, highest flood level	
1.2.5	Land use and ownership / occupancy & involvement of forest land	
1.2.6	Important surface features within the project area and major diversion or shifting involved	

1.3 DETAILS OF THE ALLOTMENT AGREEMENT

1.3.1	Name the Allottee	
1.3.2	Status of the Applicant Company	
1.3.3	Details of allotment/vesting order	
1.3.4	Name and address of the applicant	
1.3.5	Relationship between the applicant and allottee company	
1.3.6	Name of the Previous allottee of the Block	
1.3.7	Starting Date of the Mine	

	<i>Parameters</i>	<i>Details</i>
	as per CMDPA	
1.3.8	Rated Capacity as per CMDPA	
1.3.9	Production Schedule as per opening permission (meeting provisions of CMDPA if any)	
1.3.10	End Use of Coal/Lignite as per allotment order if any	

1.4 DETAILS OF THE PREVIOUS APPROVAL OF MINING PLAN

1.4.1	Date of Approval																																																																																																		
1.4.2	Conditions, if any																																																																																																		
1.4.3	Scheduled year of start of production																																																																																																		
1.4.4	Proposed year of achieving the targeted production																																																																																																		
1.4.5	Date of actual commencement of mining operations, if operations already started																																																																																																		
1.4.6	Likely date of mining operations, if operations not yet started & reasons for non-commencement of operations																																																																																																		
1.4.7	Planned production and actual levels achieved in last 3 years (Coal in Mte, OB in MM³, SR in M³/te)	<table border="1"> <thead> <tr> <th rowspan="3">Calendar Year</th> <th colspan="4">Planned</th> <th colspan="4">Actual</th> </tr> <tr> <th colspan="3">Coal "Mte"</th> <th>OB</th> <th colspan="3">Coal "Mte"</th> <th>OB</th> </tr> <tr> <th>UG</th> <th>OC</th> <th>Total</th> <th>"MM³"</th> <th>UG</th> <th>OC</th> <th>Total</th> <th>"MM³"</th> </tr> </thead> <tbody> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>	Calendar Year	Planned				Actual				Coal "Mte"			OB	Coal "Mte"			OB	UG	OC	Total	"MM ³ "	UG	OC	Total	"MM ³ "																																																																								
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	UG	OC	Total	"MM ³ "	UG	OC	Total	"MM ³ "																																																																																											
1.4.8	Statutory obligations vis-à-vis compliance status in a tabular form																																																																																																		
1.4.9	Reasons for difference between the planned and actual production levels																																																																																																		

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"		
1.5.2	Block Area Projectised "Ha"		
1.5.3	Lease area "Ha"		

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	<i>Parameters</i>	<i>Details</i>
1.5.4	Project Area “Ha”	
1.5.5	Life of the Project “Yrs”	
1.5.6	Minimum and Maximum Depth of working “m”	
1.5.7	Net Geological Block “Ha”	
1.5.8	Production Target “MTPA”	
1.5.9	Seams Available “As per GR”	
1.5.1 0	Seams not considered for Mining with Reasons	
1.5.1 1	Gross Geological Reserve “Mt”	
1.5.1 2	Net Geological Reserve “Mt”	
1.5.1 3	Blocked Reserve “Mt”	
1.5.1 4	Minable Reserve “Mt”	
1.5.1 5	Extractable Reserves “Mt”	
1.5.1 6	% of Extraction/recovery	
1.5.1 7	Reserve Depleted (till the base date) Reserves “ Mt”	
1.5.1 8	Balance Extractable reserve “Mt”	
1.5.1 9	Average Grade	
1.5.2 0	OB in MM3	
1.5.2 1	SR MM3/te	
1.5.2 2	Mining Technology	
1.5.2 3	Coal Beneficiation envisaged	
1.5.2 4	Handling of Rejects	
1	Land use pattern “ Ha”	
2	Excavation Area	
3	Top Soil Dump	
4	External Dump	
5	Safety Zone	

	<i>Parameters</i>	<i>Details</i>
6	Other Use	
7	Infrastructure area	
8	Green Belt	
9	Undisturbed Area	
	Total	
1.5.2 5	Reasons for revision	

Chapter 2 : Exploration, Geology, Seam Sequence, Coal Quality and Reserve

	<i>Parameters</i>	<i>Details</i>																		
2.1	DETAILS OF THE BLOCK																			
2.1.1	Particulars of adjacent blocks: North, South, East, West	North : South:																		
2.1.2	Location of the Block District / State	East: West:																		
2.1.3	Area of the Block "Ha"																			
2.1.4	Area of the geological block projectised "in Ha" (Area of the geological block considered for liquidation of coal reserve)																			
2.1.5	Balance area yet to be projectised "Ha"																			
2.1.6	Likely Reserve in the area yet to be projectised "Mte"																			
2.1.7	Geo-Reference Co-ordinates of the Block Boundary	<p align="center"><u>Geo-Reference Co-ordinates of the Block Boundary</u></p> <table border="1"> <thead> <tr> <th>ID</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>° ' " N</td> <td>° ' " E</td> </tr> <tr> <td>2</td> <td>° ' " N</td> <td>° ' " E</td> </tr> <tr> <td></td> <td>° ' " N</td> <td>° ' " E</td> </tr> <tr> <td></td> <td>° ' " N</td> <td>° ' " E</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	ID	Latitude	Longitude	1	° ' " N	° ' " E	2	° ' " N	° ' " E		° ' " N	° ' " E		° ' " N	° ' " E			
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2.1.8	<p>Certificate of authorised person/agency if the project area is confined within the vested/allotted block boundary and</p> <p>Where the project area extends beyond the block boundary, a certificate of authorised person/agency 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 to rule out the issue of encroachment and use of coal bearing area (beyond the vested/allotted block boundary) in the mining plan</p>	<p align="center"><u>Geo-Reference Co-ordinates of the Proposed Project Area of the Mining Plan</u></p> <table border="1"> <thead> <tr> <th>ID</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>° ' " N</td> <td>° ' " E</td> </tr> <tr> <td>2</td> <td>° ' " N</td> <td>° ' " E</td> </tr> <tr> <td></td> <td>° ' " N</td> <td>° ' " E</td> </tr> <tr> <td></td> <td>° ' " N</td> <td>° ' " E</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Note: Certificate should be given on conceptual plan envisaged in the proposed mining plan depicting OB area, infrastructure locations and geo-reference co-ordinates of the lease area, block area, project area;</p> <p>In case the project boundary extends beyond the allotted geological block boundary certificate of non-occurrence of coal should be</p>	ID	Latitude	Longitude	1	° ' " N	° ' " E	2	° ' " N	° ' " E		° ' " N	° ' " E		° ' " N	° ' " E			
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	<i>Parameters</i>	<i>Details</i>
	The Project area, Lease area and geological block area in “Ha” shall also be envisaged.	clearly shown. Certificate should envisage that the Geo-reference Co-ordinates considered for preparation of Mining plan is in line with Vesting/allotment order and does not encroach any other adjacent block, and non-coal bearing certificate of the area in case any proposed infrastructure or OB dump is outside the block area;
2.1.9	KML file of the Proposed lease and geological block.	Note: A printed copy of the KML file duly certified by Accredited agency should also be attached.
2.1.10	Whether the proposed project area is confined within the allotted block boundary, if not, the reason for deviation from allotted block boundary, may be given.	
2.1.11	If the project area extends outside the allotted block boundary, confirmation about non-occurrence of coal/lignite in the area under reference needs to be furnished	
2.1.12	Type of the Project (Operating / under Implementation) and year of Starting.	
2.2	EXPLORATION, GEOLOGY AND ASSESSMENT OF RESERVE	
2.2.1	Regional geological set up of the area, local geology, structure, stratigraphic sequence, characteristics of the litho-logical units (coal seams /partings/overburden).	(In Maximum 500 Words)
2.2.2	Local geology, Structure, Stratigraphic sequence, Characteristics of the litho-logical units (coal seams /partings/overburden).	(In Maximum 500 Words)
2.2.3	Geological Block Area “ Ha”	
2.2.4	Status of Exploration of the block	
2.2.5	Area covered by ‘detailed’ exploration within the block (sq. km)	
2.2.6	Whether entire lease area has been covered by ‘detailed’ exploration.	
2.2.7	No. of boreholes drilled within the block	
2.2.8	Whether any further exploration/study is required or suggested and time frame in which it is to be completed	
2.2.9	Year wise future programme of exploration	
2.2.10	Overall borehole density within the block (no./ sq. km) approx	
2.2.11	No of Seams available as per GR (Geological Report)	
2.2.12	Seams not considered for Mining with Reasons	
2.2.13	Dip of the Seam	
2.2.14	Seam wise thickness, depth and reserve	

Chapter 3 : Mining

	<i>Parameters</i>	<i>Details</i>
3.1	MINING METHOD	
3.1.1	Existing method of mining if the mine is under operation	
3.1.2	Proposed method of mining with justification on suitability of method of mining	<ul style="list-style-type: none"> • Seams to be worked, Choice of Mining Method and justification for Optimization of targeted capacity, sequence of mining, production scheduling, equipment configuration etc. • Behavior of coal roof & floor and support system for strata control including, Geo-technical investigations, rock mechanics study carried out already, if any, Scheme of mine development in tandem with production, transport and winding system in underground for coal and rock (if required) and personnel; Sources of stowing material (if applicable) • Brief description of all operation e.g. winning, transport, blasting, overburden removal and disposal, Life of the mine furnishing the assumptions made and the detailed computations • Location of Mine Opening: In case of opencast mines location of Access trench & reason for selection of site thereof the mining system (geometry and bench parameters and its sequence of development, along with a drawing) and quarry parameters (surface area, floor area), thickness range of each seam and parting, minimum and maximum depth. Quarry stage plans including OB dumps for 1st to 5th year and at every five years subsequently, also indicating the volume of excavation for coal and OB, area of excavation volume of internal and external dump and the area, in hectare, for internal and external dumps and height. Seam wise calendar programme of excavation, timeframe for commencement of Backfilling & justification therefor. • In case of underground mining, number and location, length & depth of shafts, inclines, and other mode of entries to be shown in the plan, e.g. Shaft 1, Shaft -2 etc.), HFL of the area, gassiness of the seams, Technology tie-ups if any. • Seams to be worked, method of working, 16ptimiza of coal roof & floor and support system for strata control including, Geo-technical investigations, rock mechanics study carried out already, if any, Scheme of mine development in tandem with production, extent of working for 1st to 5th year, at every five years subsequently, (all stages may be marked in distinct colour in the working plan of each seam), transport and winding system in underground for coal and rock (if required) and personnel; Sources of stowing material (if applicable). • Adequacy of ventilation system taking into account the development works with supporting calculations, specifications of Main Mechanical Ventilator, blasting requirements and requirement of explosives, pumping requirements and standby arrangements. <p style="text-align: center;">(In Maximum 2000 Words)</p>

	Parameters	Details																																																						
3.1.3	Coal production capacity proposed "Mtpa"																																																							
3.1.4	Justification for optimization of Coal production capacity	(In Maximum 500 Words)																																																						
3.1.5	Calendar year from which the production will start																																																							
3.1.6	Year of Achieving rated production																																																							
3.1.7	Coal production Plan "MT"	<table border="1"> <thead> <tr> <th colspan="2">Year</th> <th colspan="3">Coal Production Schedule</th> <th rowspan="2">OB "MM3"</th> <th rowspan="2">SR</th> </tr> <tr> <th>Year of Operation</th> <th>Calendar Year</th> <th>UG</th> <th>OC</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td colspan="2">Up to 31.03.2019</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Y-1</td> <td>2019-20</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Y-2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Y-3</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Y-4</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Y-5</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Note: Calendar Plan / Production Plan for the entire life of the mine.</p>	Year		Coal Production Schedule			OB "MM3"	SR	Year of Operation	Calendar Year	UG	OC	Total	Up to 31.03.2019							Y-1	2019-20						Y-2							Y-3							Y-4							Y-5						
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	- By UG																																																							
	- Overall																																																							
3.1.9	Life of the mine :																																																							
	- By OC																																																							
	- By UG																																																							
	- Overall																																																							
3.1.10	Whether the proposed external OB dump site is coal/ lignite bearing: If so, whether coal/lignite below waste disposal area is extractable.																																																							
3.1.11	Whether negative proving for coal / lignite in the proposed site for OB dump/ infrastructure has been done.																																																							
3.1.12	Results of any investigation carried out for scientific mining, conservation of minerals and protection of environment; future proposals.																																																							
3.1.13	Type of Equipment/ HEMM proposed																																																							

Chapter 4 : Safety Management

	<i>Parameters</i>	<i>Details</i>
4.1	Safety Management	
4.1.1	<p>Important safety aspects: Major Risks and uncertainties to the project viz. Proximity to river, adjacent working, geo-mining disturbances, slope stability and remedial measures suggested.</p> <p>It should also include proposed overall slope of the quarry and OB dump, dump height, strata control, fire and spontaneous heating, gas monitoring, disaster management, danger from inrush of water etc.</p>	(In Max 500 Words)
4.2.2	<p>A Commitment from the Company Board that entire mining operation will be carried out as per the Statutory provision given under Mines Act 1952, Coal Mine Regulation 2017 and wherever specific permission will be required the company will approach the concerned authorities.</p>	(To be furnished as a Part of Annexure)

Chapter 5 : Infrastructure Facilities

	<i>Parameters</i>	<i>Details</i>
4.1	Mine infrastructure required e.g. Equipment maintenance planning, Office buildings, Workshop, Power supply arrangement, Water supply etc.	(Tabular Form) <i>(Location to be shown in Conceptual Plan/Plates)</i>
4.2.	Power supply & illumination.	<i>(Max 500 Words)</i> <i>(Location to be shown in Plates)</i>
4.3	Drainage & Pumping : Assessment of Volume of Water for Pumping, Pumping Capacity and Pump Selection	<i>(Max 500 Words)</i> <i>(Location to be shown in Plates)</i>
4.4	Coal Handling Arrangement: Brief detail of the CHP/ Mode of Dispatch, Coal quality and Coal staking and handling arrangement	<i>(Max 500 Words)</i> <i>(Location to be shown in Plates)</i>
4.5	Coal washing and the proposed handling/ disposal of rejects.	<i>(Max 500 Words)</i> <i>(Location to be shown in Plates)</i> Annual Raw coal Feed plan and product with reduction in ash% from feed to product must be furnished in a tabular form

RE

Chapter 6 : Land Requirement

	<i>Parameters</i>	<i>Details</i>								
6.1	LAND REQUIREMENT									
6.1.1	Total Land requirement for the mine in “Ha”	<i>Break up of pre-mining land type (indicative) and source of data.</i>								
		Tenancy	Agricultural							
			Township							
			Grazing							
			Barren							
			Water Bodies							
			Road							
			Community							
			Govt Non Forest	Agricultural						
				Township						
				Grazing						
				Barren						
			Forest	Reserve						
				Protected						
			FreeHold							
		Total								
During mining Land use details:										
6.1.2	Type	Land use (Proposed)	Land Use (End of Life)	Land Use (Post Closure)						Total
				Agricul tural land	Plant ation	Water Body	Public/ Company Use	Forest Land (Returned)	Undist urbed	
		Excavation Area								
		Backfilled Area								
		Excavated Void								
		Without plantation								
		Top Soil Dump								
		External Dump								
		Safety Zone								
		Haul Road between quarries								
		Road diversion								
		Diversion/ below River/Nala/canal								
		Settling pond								
		Road & Infrastructure area								
		Rationalisation area								
		Garland drains								
		Embankment								
		Green Belt								
	Water Reservoir									

10

Parameters		Details							
	near pit								
	UG entry								
	Undisturbed/ Mining right for UG								
	Resettlement								
	Pit head power plant								
	Water harvesting								
	Agricultural land								
	Total								
6.1.3	Surface features over the block area								
6.1.4	No. of villages/Houses to be shifted								
6.1.5	Population to be affected by the project								
6.1.6	Proposed Rehabilitation programme								
6.2	DETAILS OF LEASE								
6.2.1	Status of Lease								
6.2.2	Existing Lease Area "Ha"								
6.2.3	Period for which Mining Lease has been granted/is to be renewed/ is to be applied for.								
6.2.4	Date of expiry of earlier Mining Lease, if any								
6.2.5	Whether the lease boundary/ required boundary is same as mentioned in the allotment order								
6.2.6	Lease Area (applied/ required) as per the Mining Plan under consideration (Ha)								
6.2.7	Whether the applied lease area falls within the allotted block								
6.2.8	Area (Ha) of lease which falls outside the delineated block/sub-block								
6.2.9	Details of outside area:								
	<input type="checkbox"/> Whether forms part of any other coal block								
	<input type="checkbox"/> Whether it contains any coal/lignite reserves								
	<input type="checkbox"/> Purpose for which it is required, e.g. roads/ OB dumps/ service buildings/ colony/ safety								

	<i>Parameters</i>	<i>Details</i>
	zone/ others (specify)	
6.2.10	Whether some part(s) of the allotted block has not been applied for mining lease.	
	- Total area in Ha of such part(s).	
	- Total reserves in such part(s). (Mt)	
	- Brief reasoning for leaving such part(s)	

Chapter 7 : Environmental Management

	<i>Parameters</i>	<i>Details</i>
16	ENVIRONMENTAL MANANGEMENT	
a.	Commitment from the project proponent that the company will comply Environment and Forest Condition stipulated in the respective clearances	

PE

Chapter 8 : Progressive & Final Mine Closure Plan

	<i>Parameters</i>	<i>Details</i>								
8.1	Land Degradation and restoration Schedule									
8.1.1	Land Degradation and Technical Reclamation (Commutative Area "Ha")									
	Stage/ Year		Land Degraded				Technically Reclaimed Area			
			Excav	Dump (Extn + Top Soil)	Infra/ others	Total	Backfill	Dump (Extn + Top Soil)	Others	Total
	Up to Base year *									
	Y-1	19-20								
	Y-3	21-22								
	Y-5	23-24								
	Y-10	28-29								
	Y-15	33-34								
	Y-20									
	Y-25									
	Y-30									
	Y-33*									
	Post Closure									
	Y-36									
<p>* - Considering Base year i.e. 2018-19 and life of 33 years in this case</p> <p>Note: For the purpose of preparation of Stage plan and action plan for restoration and assessment of life of mine and escrow account, the year in which any activity over the proposed land is envisaged, should be considered as 1st year i.e First year of development. Stage Plan for reclamation and restoration of land should be given for 1st, 3rd, 5th and subsequently every five year for the entire life of the project and for 3 years post closure.</p>										
8.1.2	Biological Reclamation (Cumulative in "Ha")									
	Year/Stage		Biologically Reclaimed Area				Forest land (Return)	Un Disturbed/ To be left for Public/com Use	Tota l	
			Agri cultu re	Plantati on	Water Body	Public/ Compan y Use				Total
	Up to Base year *									
	Y-1	19-20								
	Y-3	21-22								
	Y-5	23-24								
	Y-10	28-29								
	Y-15	33-34								
	Y-20									
	Y-25									

Parameters		Details							
Y-30									
Y-33*									
Post Closure									
Y-36									

8.2 **Post Closure Water Quality management :** **(Max 200 Words)**
 (Existing water bodies available in the lease hold area; Measures to be taken for protection of the same including control of erosion, sedimentation, siltation, water treatment, diversion of water course if any; Measures for protection of contamination of ground water from leaching etc;)

8.3 **Post Closure Air Quality management :** **(Max 200 Words)**

8.4 **Waste Management (Figures in MM3)**

	OB Removal (Cumulative)			External Dump (Cumulative)		Internal Backfilling (Cumulative)		Embankment (Cumulative)	
	Top Soil	OB	Total	Top Soil	OB	Top Soil	OB	Top Soil	OB
Up to Base year *									
Y-1	19-20								
Y-3	21-22								
Y-5	23-24								
Y-10	28-29								
Y-15	33-34								
Y-20									
Y-25									
Y-30									
Y-33*									
Post Closure									
Y-36									

* - Considering Base year i.e. 2018-19 and life of 33 years in this case

Stage Plan for 1st, 3rd, 5th and subsequently every five year for the entire life of the project and for 3 years post closure

8.5 **Top Soil Management – (Including Action plan for Top Soil management)**

(All Figures are Cumulative and in MM3)

	Top Soil Removal Plan	Top Soil Used				
		Spreading Over Embankment	Spreading over Backfill area	Spreading over External OB Dump area	Used in Green Belt area	Total Utilised
Up to Base						

		<i>Parameters</i>		<i>Details</i>			
		year *					
	Y-1	19-20					
	Y-3	21-22					
	Y-5	23-24					
	Y-10	28-29					
	Y-15	33-34					
	Y-20						
	Y-25						
	Y-30						
	Y-33*						
		Post Closure					
	Y-36						
<p>Stage Plan for 1st, 3rd, 5th and subsequently every five year for the entire life of the project and for 3 years post closure</p>							
8.6	Management of Coal Rejects.		(Max 150 Words)				
			Proposal regarding future maintenance and dismantling of structures, slurry pond and rejects				
8.7	Restoration of Land used for Infrastructure		(Infrastructure to be retained and to be dismantled are to be presented in a tabular form envisaging measures to be taken for their physical stability and maintenance for the retained infrastructure facilities)				
8.8	Disposal of Mining Machinery						
8.9	Safety & Security		Measures to be implemented to prevent access to surface opening for underground working, excavation etc				
8.10	Abandonment Cost and Financial Assurance						
8.10.1	Abandonment Cost : Cost of Activities to be taken up for closure of the mine						

Parameters		Details			
Head		Unit	Quantity	Rate Rs/Unit	Amount "Rs. Cr"
Progressive closure	Water quality management	LS			
	Air quality management	LS			
	Waste Management	M Cum			
	Barbed wire fencing around dump	m			
	Barbed wire fencing around the Pit	m			
	Filling of Void - Rehanding of Crown Dump	MM3			
	Top Soil management	MM3			
	Technical and Biological Reclamation of Mined out of land and OB Dump	Ha.			
	Plantation over virgin area including green belt	Ha			
	Manpower Cost and supervision				
	Toe Wall around the dump	m			
	Garland drain	m			
	Garland Drain around the dump	m			
	Any other Activity				
Dismantling of Infrastructure & Disposal/ rehabilitation of Mining machinery	Dismantling of workshop	LS			
	Rehabilitation of the dismantled Facilities	LS			
	Dismantling of pumps and Pipes/ other facilities	LS			
	Dismantling of stowing bunker, provisioning of pumps for borewell pumping arrangement				
	Dismantling of UG equipment				
	Rearranging water pipeline to dump top park/ Agricultural land	LS			
Safety and security	Dismantling of Power lines				
	Barbed wire fencing around dump				
	Barbed wire fencing around the Pit	m			
	Barbed wire fencing with masonary pillars				
	Concrete wall with Masonary pillars around the pit	m			
	Securing air shaft and installation of borewell pump				
	Securing of Incline				
	Concrete wall fencing around the water body				
	Boundary wall around the water body				
	Stabilisation(viz benching, pitching etc) of side walls of the water body				
	Toe Wall around the dump				
	Garland drain				
Technical and Biological Reclamation of Mined out of land and OB Dump	Garland Drain around the dump				
	Drainage Channel from main Ob dump				
	Filling of Void	Ha			
	Top Soil management	MM3			
	OB Rehanding for backfilling	MM3			
	Terracing, blanketing with soil and vegetation of External OB Dump	Ha			
	Paripheral road, gates, view point, cemented steps on bank				
	Expenditure on development of Agricultural land				
Post Closure management and supervision	Landscaping and Plantation	LS			
	Power Cost	LS			
	Post Mining Water quality management	LS			
	Post Mining Air quality management	LS			
	Subsidence monitoring for 5 years	LS			
	Waste Management	LS			
Others	Manpower Cost and supervision	LS			
	Enterprenuership development (vocational/skill development training for sustainable income of affected people				
	Golden Handshake / Retrenchment benefits to 100 employees of OC				
	Golden Handshake / Retrenchment benefits to 200 employees of UG				
	Onetime financial grant to societies / institutions /organisations which is dependent upon the project;				
	Provide jobs in other mines of the company				
Continuation of other services like running of schools etc.					
Total					

8.10.2 Financial Assurance : Amount to be deposited in Escrow account as a security against the

Parameters

Details

mine activities to be carried out for the closure of the mine

WPI as on	Aug-09	121.70
WPI as on base date	01-04-2019 *	121.70
Escalation rate of Closure cost		1.00
	UG	OC
Base Rate of Closure Cost "Rs. Crs./Ha"	0.01	0.06
Closure Cost "Rs. Crs./Ha"	0.015	0.09
Project Area		885.53
Amount to be deposited into Escrow Account "Rs. in Crs"		79.70
Amount already deposited into Escrow Account "Rs. in Crs"		
Net Amount to be deposited into Escrow Account "Rs. in Crs"		193.36
Rate of compounding of Annual Closure Cost		5.00%
Balance Life of the project "in Yrs"		33
Annual Closure Cost		2.415
Amount to be deposited into Escrow Account after compounding @ of 5% "Rs. in Crs"		193.36

Amount to be deposited into Escrow Account annually				
Year	OC	Year	UG	Total

1	2.415			2.415
2	2.536			2.536
3	2.663			2.663
4	2.796			2.796
5	2.936			2.936
6	3.082			3.082
7	3.236			3.236
8	3.398			3.398
9	3.568			3.568
10	3.747			3.747
11	3.934			3.934
12	4.131			4.131
13	4.337			4.337
14	4.554			4.554
15	4.782			4.782
16	5.021			5.021
17	5.272			5.272
18	5.535			5.535
19	5.812			5.812
20	6.103			6.103
21	6.408			6.408
22	6.728			6.728
23	7.065			7.065
24	7.418			7.418
25	7.789			7.789
26	8.178			8.178
27	8.587			8.587
28	9.017			9.017
29	9.467			9.467
30	9.941			9.941
31	10.438			10.438
32	10.960			10.960
33	11.508			11.508

Total	193.4			193.359
--------------	--------------	--	--	----------------

*- Base date considered in the example is 01.04.2019 and life of the mine considered is 33 years

ANNEXURES

	<i>Parameters</i>	<i>Details</i>	
I	Copy of allotment order /Vesting order.	Mandatory Document	Annexure - I
II	<p>Certificate of authorised person/agency if the project area is confined within the vested/allotted block boundary and</p> <p>Where the project area extends beyond the block boundary, a certificate of authorised person/agency 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 to rule out the issue of encroachment and use of coal bearing area (beyond the vested/allotted block boundary) in the mining plan</p>	<p style="text-align: center;">Mandatory Document</p> <p>Note: Certificate should be given on conceptual plan envisaged in the proposed mining plan depicting OB area, infrastructure locations and geo-reference co-ordinates of the lease area, block area, project area;</p> <p>In case the project boundary extends beyond the allotted geological block boundary certificate of non-occurrence of coal should be clearly shown.</p> <p>Certificate should envisage that the Geo-reference Co-ordinates considered for preparation of Mining plan is in line with Vesting/allotment order and does not encroach any other adjacent block, and non-coal bearing certificate of the area in case any proposed infrastructure or OB dump is outside the block area;</p> <p>The Project area, Lease area and geological block area in “Ha” shall also be envisaged.</p>	Annexure - II
III	Approval of the Company Board Approval: ,	<p style="text-align: center;">Mandatory Document</p> <p style="text-align: center;">Board approval must Specify :</p> <ul style="list-style-type: none"> • Approvals of Mining Plan form the Board of the company giving undertaking for correctness of data used in preparation of Mining Plan; • Details of the authorised person/ Agency; • Acceptance of the Mining Plan by the company board with recommendation for consideration of Standing committee for approval; • Undertaking that the mine will be developed as per the approval of the 	Annexure - III



	<i>Parameters</i>	<i>Details</i>	
		<p>mining plan from Ministry of coal and all other approvals, as required will be obtained from relevant authorities</p> <ul style="list-style-type: none"> • Commitment that entire mining operation will be carried out as per the Statutory provision given under Mines Act 1952, Coal Mine Regulation 2017, EP Act 1986 and FC Act 1980 and & wherever specific permission will be required the company will approach the concerned authorities. • Financial Assurance for implementation • Undertaking that the reclamation & rehabilitation work shall be carried out in accordance with the approved Mine Closure Plan and any modification /amendments which may be made in the mine Closure Plan by Ministry of Coal, from time to time. • Undertaking that the protective measures contained in the mine closure plan including reclamation and rehabilitation works will be carried out in accordance with the approved mine closure plan and final mine closure plan and undertake to submit a yearly report before 1st July of every year to the Coal Controller setting forth the extent of protective and rehabilitative works carried out as envisaged in the approved mine closure plans (Progressive and Final Closure; • Undertaking that they will obtain a mine closure certificate from Coal Controller to the effect that the protective, reclamation and rehabilitation works carried out in accordance with the approved mine closure plan/final mine closure plan and will surrender the reclaimed land to the State Government concerned. 	
IV	Copy of earlier approval of mining plan.	Mandatory Document	Annexure - IV
V	Plan / chart showing schedule of Implementation of Mine closure activities	Mandatory Document	Annexure - V



	<i>Parameters</i>	<i>Details</i>	
	(progressive and final closure) with duration of important activities		
VI	Other document (if any)		Annexure - ...

PLANS/ PLATES

I	Location plan										
II	<p>Plan certified by authorised person/agency if the project area is confined within the vested/allotted block boundary and</p> <p>Where the project area extends beyond the block boundary, a Plan certified by authorised person/agency should be supported with a plan with geo-reference co-ordinates duly certified by the State Government mines and Geology department.</p> <p>Plan in support of Annexure - II</p>	<p>Plan in support of Annexure - II</p> <p>Note: Certificate should be given on conceptual plan envisaged in the proposed mining plan depicting OB area, infrastructure locations and geo-reference co-ordinates of the lease area, block area, project area;</p> <p>In case the project boundary extends beyond the allotted geological block boundary certificate of non-occurrence of coal should be clearly shown.</p> <p>Certificate should envisage that the Geo-reference Co-ordinates considered for preparation of Mining plan is in line with Vesting/allotment order and does not encroach any other adjacent block, and non-coal bearing certificate of the area in case any proposed infrastructure or OB dump is outside the block area;</p>									
III	KML file of the Proposed lease and geological block.	Note: A printed copy of the KML file duly certified by Accredited agency should also be attached.									
IV	Plan in scale of not less than 1: 10000 showing approved block boundary vis-à-vis proposed/existing mining lease & Mine boundary superimposed over it in distinct colour.										
V	Geological plan showing all the boreholes drilled and proposed to be drilled showing allotted block boundary and required lease area										
VI	Graphic Litholog										
VII	Surface Plan showing drainage system, Contour, at minimum 3m interval, location of BH										
VIII	Conceptual plan showing infrastructure facilities including colony, boundary of mining area, mine entries, roads including road diversion alignment etc										
IX	Floor contour plan and seam folio plan, ISO-grade plan	<table border="1"> <tr> <td>Seam</td> <td>Floor Contour</td> <td>Seam Folio</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>	Seam	Floor Contour	Seam Folio						
Seam	Floor Contour	Seam Folio									
X	X-section showing coal/Lignite seams										
XI	Plan showing existing and proposed surface layout										
	OPENCAST (OC) MINES										

FE

XII	Plan showing total coal thickness and overburden thickness and stripping ratio	OC
XIII	Final stage quarry plan showing haul road alignment	OC
UNDER GROUND (UG) MINES		
XIV	Plan showing mode and location of entries and surface layouts	UG
XV	Layout of the panel for each system (like Longwall, Continuous Miner, Bord & Pillar, road header etc.)	UG
XVI	Layout of pillar extraction	UG
XVII	Support system	UG
XVIII	Haulage and transport system	UG

CLOSURE PLAN

XIX	Post mining land use plan		
XX	Progressive mine closure plan/ stage plan indicating stages at 1st,3rd, 5th, year of achieving Peak rated capacity and end of life (showing area, volume, dump height etc for OC and seam-wise layout projects and ventilation system in UG)	Year	Plate No
		1st	
		3rd	
		5th	
		PRC	
		End of Life	
XXI	Reclamation plan		

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