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GOVERNMENT OF INDIA

MINISTRY OF  
**COAL**

Draft

**Mining Plan Guidelines**

for

**Coal and Lignite blocks**

2024

## List of Abbreviations

APA = Accredited Prospecting Agency	MCR = Mineral (Other than Atomic and Hydrocarbons Energy Minerals)
CPCB = Central Pollution Control Board	Concession Rules, 2016 rules
CCO = Coal Controller Organisation	Mm3 = Million Cubic Meters
CIL= Coal India Ltd.	MoC = Ministry of Coal
Crs= Crores =10 million	MPPA = Mining Plan Preparing Agency
CMDPA = Coal Mine Development and Production Agreement	NABET = National Accreditation Board for Education and Training
CMPDIL = Central Mine Planning & Design Institute Limited	NLCIL = Neyveli Lignite Corporation India Limited
DGPS = Differential Global Positioning System	NEERI = National Environmental Engineering Research Institute
DGMS = Directorate General of Mines Safety	OC = Opencast
ERA = Expert Review Agency	OB = Overburden
EC = Environment Clearance	OBR= OB Removal
FC = Forest Clearance	PAPs= Project Affected Persons
GR = Geological Report	PL = Prospecting Licence
Ha = Hectare	PWD = Public Works Department
IIT = Indian Institute of Technology	PSP = Pump Storage Projects
ISM = Indian School of Mines	PRC= Peak Rated Capacity
Km = Kilometre	QCI = Quality Council of India
LS = Lumpsum	QP = Qualified Person
m = Metre	SCCL = Singareni Collieries Company Limited
Max = Maximum	SR = Stripping Ratio
MCDR = Mineral Conservation and Development Rules	SPCB = State Pollution Control Board
Mt = Million Tonne	SWCS= Single Window Clearance System
MTPA = Millian Tonne Per Annum	t = Tonne
ML = Mining Lease	UG = Underground
MoEF&CC = Ministry of Environment, Forest and Climate Change	WGS84 = World Geodetic System 1984
	WPI = Wholesale Price Index
	w.r.t= with respect to

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**Government of India**

**Ministry of Coal**

**[MPS Section]**

**Shastri Bhawan, New Delhi**

**June, 2024**

**OFFICE MEMORANDUM**

**Subject: Guidelines for Mining Plan for Coal & Lignite blocks.**

**Chapter-I  
Preliminary**

- 1.1. Short title and commencement.** - (a) These guidelines may be called the Guidelines for Mining Plan for the coal and lignite blocks 2024.
- (b) These Guidelines shall come into force from the date of publication. However, Mining Plans uploaded to SWCS before the date of publication, the guidelines dated 29.05.2020 will be followed.
- (c) The Mine Closure Plan, inclusive of the Final Mine Closure Plan, shall constitute an integral component of the Mining Plan.
- 1.2. Objectives:** (a) To optimize the extraction of coal resources while ensuring sustainable practices that minimize waste generation and maximize efficiency.
- (b) To emphasize the importance of systematic and scientific mining, to promote safety and health, to safeguard the interest of workers and communities involved in coal mining activities, to promote the implementation of robust safety protocols and infrastructure and adoption of global best technologies.
- (c) To promote responsible mining practices that support both the coal industry and the broader ecosystem. Mandatory incorporation of restoration, remediation, and regeneration measures into mining plans to ensure the responsible and sustainable management of natural resources.
- (d) To minimize environmental footprint, mitigate adverse impacts on local communities and ecosystems, and contribute to the overall conservation and preservation of natural habitats.
- (e) To prioritize environmental conservation by monitoring soil, groundwater, and vegetation and implementing measures to improve water quality.

(f) To obligate the project proponent to carry out the mining operations within the allocated block boundary.

### **1.3. Definitions: In these guidelines, unless the context otherwise requires**

- a) “Base Date” of the Mining Plan means the cut-off date on which the extractable reserve, balance life etc. have been quantified; In the case of mines already in operation, the date for estimating resources should be at the end of the previous financial year.

For new mines, 1<sup>st</sup> year shall be determined from the date of receiving mine opening permission.

- b) “Lease Area” means the area specified in the Mining Plan within which the mining operations are proposed to be undertaken, and includes the non-mineralized area required and approved for the activities falling under the definition of mine as referred to in The Mines Act 1952. Evacuation route, R&R and Employee Township area outside the definition of Mine will not be the part of Mining Plan.
- c) Minor changes mean the changes defined in Para 2.9.(b) of the guidelines that require modification in the Mining Plan, and approval of the company board with a copy sent to CCO for consent;
- d) Escrow account means an account opened by the project proponent in a scheduled bank in consultation with the CCO during the course of mine operations, facilitating the deposition and withdrawal of funds specifically designated for mine closure purposes;
- e) “First-mile connectivity” means seamless movement of coal from the mine to the dispatch point with minimum road transport and mechanized loading onto railway rakes with minimum manual intervention or direct coal transfer to the consumer through conveyors and thus mitigating the adverse impact on environment and health of communities around the coal mining projects.
- f) “Mine closure” means the comprehensive process of closing and securing a mining operation upon completion of mining activities. This involves a sequence of actions and strategies designed to safeguard the environment, local communities, and mining site, mitigating and addressing social impacts, executing land reclamation, and restoring the site to the acceptable level;
- g) “Mine Closure Plan” means a formal document that includes financial provisions and activities to be implemented from an early stage and continued throughout the operation of a mining cycle to minimize adverse long-term environmental, physical, social and economic impacts; and to create a suitable landform to acceptable level.

- h) “Project Area” means the total lease area specified in the mining plan within which mining operations can be undertaken and includes the area required for OB dumping and infrastructure as per the definitions of the Mines Act, 1952. However, residential areas, R&R colonies, evacuation routes etc. outside the mining lease area will not be the part of the project area;
- i) “Life of the Mine” means the total production years as given in the calendar plan from the zeroth year to the post-mining closure period and excluding post-closure monitoring period;
- j) Post mining closure period means the period that starts after the cessation of the mining operation until all the activities of final mine closure are completed.
- k) Post closure monitoring period means the period of 2 (two) years after completion of final mine closure activities such as monitoring work done towards closure of the mine, air quality, water quality, subsidence etc to mitigate the effects on nearby communities.

**1.4. Applicability: (a) Every coal/lignite to have a mining plan:** All coal/lignite blocks shall have a mining plan approved by the competent authority. No coal/lignite block shall be operationalized or allowed to produce coal/lignite without an approved mining plan. Mining operations shall be undertaken in accordance with the duly approved mining plan. The approved mining plan shall be valid for the balance life of the Mine, provided that any revision(s) or modification(s) of the mining plan duly approved by the competent authority and such approval of the revised or modified mining plan shall remain valid for the estimated balance life.

(b) These guidelines shall apply to all Coal and Lignite mining operations including sand for stowing in mines in India. These guidelines supersede all previous Mining Plan and Mine Closure guidelines except Mine Closure Guidelines issued in 2022 for abandoned/discontinued mines. For the mines abandoned/discontinued before 2009, the Guidelines for Management of abandoned/discontinued mines dated 28.10.2022 will be applicable. The guidelines and format for the formulation of the Mining Plan of Coal and Lignite are detailed in **Appendix—I**. For sand used in stowing, the project proponent is required to prepare Mining Plans in accordance with the formats prescribed by the respective states. In the event that a state does not have a specific format, the Ministry of Coal will issue separate guidelines pertaining to the preparation of such Mining Plans.

(c) The present system of approval of the Mining Plan by the Board of Coal India Limited or subsidiary of Coal India Limited, as the case may, will remain unchanged as per the O.M. given in **Appendix-II**.

(d) Provided, if any other mineral with commercial value, is found in the leasehold area, it shall be reported to the State Govt. for inclusion in present Mining Plan and the Mining plan thereof shall be prepared as per the extant rules.

## **Chapter-II**

### **Mining Plans**

- 2.1.** The mining plan shall encompass provisions for different phases of the life of the mine as stage plans. The Stage plans for 1<sup>st</sup> year, 3<sup>rd</sup> year, 5<sup>th</sup> year, 10<sup>th</sup> year, the year of achieving rated capacity of the mine, the 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 including details as per para 2.8. (f).

The Mining Plan shall incorporate details of production/scheduling with corresponding planning for the balance reserve yet to be projectized for a) the remaining lease period, b) 30 years, c) remaining life of the mine, whichever is less. Beyond this period a scheme should be attached for tentative mining method and production capacity.

- 2.2. Project information:** The project proponent is to delineate crucial details such as the project's location, detail of allotment, previous approval of the Mining Plan, if any, and the modification and socio-economic information. Guidelines aim to provide approving authorities with a clear understanding of the project's scope, feasibility, and potential impacts, facilitating informed decision-making and ensuring adherence to stringent mining regulations and environmental standards.
- 2.3. Geology:** The project proponent shall envisage the action plan for exploration and liquidation of the balance reserve yet to be projectized. The Mining Plan shall be formulated as per Geological Report approved by Ministry of Coal. Provided, if the Geological Report is prepared by GSI, CMPDIL, MECL, SCCL, NLCIL, State Government Organizations and other notified agencies, the same will not require approval of the Ministry of Coal. The approved Geological Report shall be thoroughly scrutinized to ascertain the most suitable method of mining, and subsequently, the Mining Plan shall thereof be prepared to align with and adhere to the stipulations outlined within the said Geological Report.
- 2.4. Mining Method:** The paramount consideration is to be given by the project proponent to determine a Mining Method that achieves optimum extraction of mineral resources while ensuring sustainable resource management. All coal resources should be analyzed for both opencast and underground mining methods.
- 2.4.1. Underground Mining:** Adoption of advanced technology in mining is crucial for enhancing productivity, safety and efficiency. This includes the utilization of state-of-the-art blast-free technologies such as longwall mining systems, continuous miners, etc. The project proponent shall phase out the manual mining and give preference to mechanized mining or Mass Production technologies (MPT) such as longwall mining, and continuous miners over semi-mechanized methods.
- (a) **Ventilation and Strata Control:** The project proponent shall ensure that the design of entries, and travelling roadways should comply with statutory requirements and shall conduct

a scientific study to assess actual requirements. The project proponent shall also ensure the monitoring through all scientific tools to ensure safety.

**2.4.2. Opencast mining:** The suitability of opencast mining to be meticulously assessed, with a preference given to blast-free technologies such as surface miners and rippers, wherever applicable. Additionally, the feasibility to the extent possible inducting draglines, in-pit crushers for coal, overburden, or both should also be evaluated.

**(a) Standardization of Heavy Earth Moving Machinery (HEMM):** Standardization in coal mining is crucial for ensuring safety, efficiency, and interoperability in mining operations. In order to establish common specifications, practices, and guidelines to enhance the overall performance and safety of these machines, the common standardization in HEMM for coal mining is at **Appendix -III**. The project proponent may select the combination of equipment in accordance with the specified combination.

**(b) Make in India:** The Project proponent to put thrust on the selection of Indigenous equipment or equipment with indigenous components.

**(c) Slope Stability:** Project proponent to conduct thorough geotechnical assessments to evaluate the stability of slopes, considering factors such as the geological structure, groundwater conditions, bench heights, drainage systems etc. Scientific studies may be conducted to predict and assess potential failure mechanisms, ensuring that all slopes have a suitable factor of safety.

**2.5. Safety Management:** The project Proponent shall ensure that all mining operations be performed considering due aspect of safety and prepare a Safety Management Plan as per Coal Mines Regulations 2017, before starting the Mining operation. The Project Proponent shall also conduct the safety Audit as per the Safety and Health Management System Audit Guidelines, 2023 of the Ministry of Coal and submit the report along with the five-year compliance report as Para 2.7.

**2.6. Infrastructure facilities:**

**(a) First Mile Connectivity:** In an ongoing pursuit of sustainable development and environmental friendly coal evacuation, it is mandated to evacuate coal through conveyors or railway or any environment friendly transport other than road transport from mine sites to the end use destinations for projects with PRC more than 2 MTPA. It is advised to put efforts to eliminate road transport by adopting environment friendly transport for coal evacuation for projects with PRC even upto 1 MTPA.

**(b) Mechanized Loading:** The project Proponent to opt for mechanized loading to optimize the movement of coal from siding to various end users. This will significantly enhance operational efficiency apart from protecting the environment.

**2.7. Project Area:** (a) For coal blocks allocated through auction or allotment, the project boundary shall be delineated based on the DGPS survey conducted by CMPDIL. If the DGPS survey is done by an agency other than CMPDIL, the same shall be certified by CMPDIL and must be

attached to the Mining Plan. The project Proponent shall also submit the KML file of the same along with the Mining Plan.

(b) The excavation/mining area envisaged in the Mining Plan must be restricted within the allotted/vested geological 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 Co-ordinates (shape coordinates) of the project boundary, Lease boundary and allocated Block boundary (binding co-ordinates given in the vesting order).

(c) In case the project area extends beyond the block boundary/existing mining lease the following certificates for the additional area will be required: i) As the State government is the custodian of exploration data under provisions of Rule 16 of MCR 1960, a certificate from Mines and Geology Department of concerned State Government specifying their intent grant of the lease beyond vested geological boundary/Existing Mining Lease. (ii) A certificate from CMPDIL in proof of the non-existence of coal/lignite in the area beyond the vested/allocated boundary area (iii) A certificate of non-workability/non-viability issued or certified by CMPDIL in case of existence of coal. (iv) In case of Coal bearing area, an undertaking/Affidavit that the project proponent will rehandle the OB in a specified time period. These are to rule out the issue of encroachment and use of the area beyond the vested/allotted block boundary/existing mining lease in the Mining Plan. Criteria of non-workability as defined in **Appendix-IV**.

The application for the issue of a certificate from the Mines and Geology Department of the State Government must be supported with CMPDIL certificate for the area under reference (along with their Cardinal Point coordinates) duly certified. Where the project area extends beyond the block boundary/existing mining lease, the certificate issued as stated above must be attached in the Mining Plan along with the undertaking/Affidavit that the project proponent will rehandle the OB in a specified time period.

(d) If any part of an allocated block area is not included in the Project area, the same shall be justified along with the plan.

(e) In order to obtain any further clearances EC, FC, etc., delineation of Forest land and non-Forest land out of the project area is essential. Hence land scheduling shall be done to delineate the extent of forest land prior to the preparation of the mining plan. 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.).

**2.8. Compliance Report:** A compliance report shall be submitted by the project proponent with respect to approval conditions of the Mining Plan including any deviations and modifications for changes other than minor changes, every 5 years to Coal Controller (CCO) with intimation of submission to Administrative Section dealing with the allocation/allotment of the coal block at Ministry of Coal for information. Such submission shall be done within 180 days of completion of 5 years of the previous report or before 28.05.2025, whichever is later. The information desired above must bear a certificate of Qualified Person/Accredited Mining Plan preparing Agency, and have the 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 compliance report should also include:

- a) Changes made during implementation w.r.t. approved Mining Plan in tabular mode,
- b) Proposed minor changes if any,
- c) Stage plans for the next 5<sup>th</sup> and 10<sup>th</sup> years,
- d) Revised balance life of the mine,
- e) Revised calculation of Mine closure activities and ESCROW amount with respect to revised balance life.
- f) Every lessee shall submit a copy of high resolution georeferenced orthorectified multispectral satellite image or drone survey of the mine/blocks along with processed output [digital elevation model and orthomosaic] obtained from such survey with mining plan or its revision/modification or compliance report. The image captured shall not be older than six months from the date of the submission of the mining plan.

**2.9. (a) Revision of Mining Plan:** The Mining Plan may be revised with the approval of CCO for reasons other than specified in Para 2.9(b). While submission of revision of mining plan the reason for revision shall be specified in writing by the lessee. A comparison of all the parameters in the approved and proposed mining plan shall be given.

**(b) Modifications of Mining Plan:** The project proponent shall submit a specific report prepared by QP/AMPPA, containing relevant changes made in the approved mining plan to CCO with a copy of the same to the Administrative Section dealing with the allocation or allotment of the coal block for information. The Project Proponent shall certify that no other changes have been made in the approved mining plan other than those submitted in the report. After receipt of the report, the CCO is mandated to convey consent or to suggest minor changes within 15 days, else it will be treated as deemed approved.

The project proponent is empowered to make modifications with the approval of the respective company Board. w.r.t. the following minor changes:

- i. Changes in land type within the total leased area.
- ii. Changes in location and type of infrastructure within the project area
- iii. Increase in production up to fifty percent of the sanctioned peak rated capacity and also the relevant changes required for the production enhancement including the stage plans etc.
- iv. Changes in the specification or configuration of equipment and Changes in HEMM deployment plan.
- v. Highwall mining, if introduced in opencast mines.
- vi. Use of land for repurposing including installation of solar plant, Pump Storage Projects, gasification, renewable, washery etc subject to relevant statutes.
- vii. Change in technology within the method of mining. (e.g. Shovel dumper to surface miner, Semi mechanized mining to continuous coal cutting technologies etc.)

**(c) Flexibility in calendar plan:** The project proponent can have flexibility for the increase in annual coal production ahead of the scheduled production, as per the approved mining plan. This flexibility for the increase in coal production shall be maximum upto the approved PRC.

**(d) In the case of allotted/auctioned coal/lignite blocks, the Mining Plan may be revised or modified for extraction of more coal on a year-to-year basis.**

Provided that the Mining Plan shall be revised for extraction of less coal on a year-on-year basis only under the following circumstances: **a.** if the remaining extractable resource of the coal mine is less than 3 (three) times the peak 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 the Mining Plan for extraction of less coal would be subject to prior approval of the Nominated Authority.

### Chapter-III

#### Mine Closure Plans

3. Mine closure guidelines aim to ensure responsible closure and rehabilitation of mining sites, minimizing environmental degradation, safeguarding public health, and promoting sustainable development by restoring the land to a condition suitable for future use of land or returning it to its near-natural state, while also holding project proponents accountable for their closure obligations.

3.1. **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.

However, for any mine abandoned/discontinued after the year 2009 without an approved mine closure plan or any mine having an approved mine closure plan abandoned after the partial extraction the project proponent is mandated to prepare and obtain approval for Temporary and Final Mine closure plans in line with the Guidelines of Management of mines discontinued/abandoned/closed before the year 2009 issued by Ministry of Coal on 28<sup>th</sup> October 2022, within one year of issuance of these guidelines.

3.2. **Just Transformation:** It refers to the equitable process of transitioning from traditional coal mining toward more sustainable and environmental friendly manners, ensuring that the environment is protected, the land is restored, and affected workers, communities, and regions are supported and empowered throughout the transformation. It involves recognizing and addressing the social, economic, and environmental challenges associated with mine closure activities.

Every mine owner shall take all possible precautions for undertaking sustainable mining while accomplishing prospecting, mining and mine closure activities etc.

3.2.1 **Restoration & Repurposing:** With aims to minimize the long-term ecological damage caused by mining and to ensure that the land can support various ecosystems, regarding the land, replanting native vegetation, restoring water bodies, and rehabilitating wildlife habitats, the Project proponent shall complete all activities related to technical, biological reclamation and repurposing (agriculture, pisciculture, eco-park, recreational, landscaping, waterbody

conservation or creation as per Mission Amrit Sarovar, irrigation etc. wherever it is applicable) related to Just Transformation before issuing the Final Closure Certificate. The third party certifying the expenditure on these activities should ensure the same.

- 3.2.2 People and communities:** All social amenities and infrastructure created (like hospitals, schools, community centers etc.) should be handed over to the State Government. The office and other buildings of mine may also be utilized or developed as skill development centers or others. Efforts need to be systematically undertaken in each progressive closure period of 5 years to enhance skills, livelihoods, and living conditions of communities (PAPs) directly or indirectly dependent within the vicinity of the mine. The project proponent shall submit a 5 yearly report, outlining of the initiatives undertaken to skill development and sustain the livelihoods of the affected communities. It will be supplementary to the progressive closure claims submitted.
- 3.2.3** Project proponents shall strive to achieve the Nationally Determined contribution and set targets for the reduction of Scope II emissions in the Mining Plan by at least 25 percent of annual generation by renewable. Further, The Project Proponent shall promote electric vehicles (EVs) and gas-based vehicles in opencast coal mines to enhance sustainability, reduce environmental impact such as greenhouse gas emissions, and decrease dependency on diesel fuel.
- 3.3. Environmental management:** The project proponent shall ensure mitigation of the adverse impacts of mining activities on the environment. This entails scientific assessment, monitoring, and control measures to safeguard air, water, and soil quality, biodiversity conservation, and identification of sensitive areas and potential risks of land degradation. safe and sustainable diversion of the nala for uninterrupted natural water flow. The project proponent shall also make efforts to recharge groundwater and adhere to water quality standards as per statutes.
- 3.4.** Progressive mine closure status shall be prepared every 5 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 authorized by the Central Government (Refer **Appendix-V**) or any other institutes/ organizations/ agencies specified from time to time for the purpose.
- 3.5. Mine Closure Cost:** The total cost for carrying out such activities shall be estimated for assessment of mine closure cost of the mine involving progressive and final mine closure activities such as 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, for specified post environmental monitoring, supervision charges, power cost, protective and rehabilitation measures including their maintenance and monitoring, stowing for underground mines, miscellaneous charges barbed wire fencing as prescribed boundary wall all around the vulnerable area, etc. for the post-closure period.
- 3.5.1. Escrow Amount Calculation:**

A guideline for mine closure was issued based on the wholesale price index (WPI) as notified by the Government of India from time to time while preparing the Mining plan and Mine Closure Plan. These rates need modification based on the wholesale price index (WPI). The revised rate is Rupees Fifteen Lakh per hectare for opencast and Rupees Two Lakh per hectare for underground Mine. These rates will be considered as Base Rate to be escalated based on the WPIs as on 1<sup>st</sup> April of the corresponding financial year as declared from time to time by the Government of India.

*[Illustration:  $\{(Rs\ 15\ lakhs \times WPIs\ as\ on\ 1^{st}\ April)\} / (WPI\ as\ on\ April\ 2024\ i.e.\ 153.00)\} =$  Rupees in lakh, in case of Opencast project].*

The annual escrow amount is to be computed considering the total project area of the mine multiplied by the escalated rate (at the above-mentioned rates) and dividing the same by the balance production life of the mine in years. An amount equal to the escrow amounts to be deposited each year throughout the mine life compounded @5% annually.

The project proponent is required to deposit the said amount for each financial year by 30<sup>th</sup> September of the respective year, failing which an interest @0.5 percent/month will be charged on the amount to be deposited for that respective year.

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

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

In case of revision of Mine Closure cost on account of revision of Mining Plan, the mine closure cost as per the approved mining plan or the mine closure cost estimated as per the latest WPI, whichever is higher is to be considered.

**3.5.2. 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 the exclusive beneficiary prior to the 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 3.5.1. 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.

**3.5.3.** The Coal Controller shall get the WPI (used for escalation of financial assurance amount at the time of formulation of Mining plan) updated as of 1<sup>st</sup> April of the corresponding financial year 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 3.5.1. Coal Controller shall also get the information, submitted under Para 3.4 & 4.8, verified and get the yearly financial assurance amount modified with respect to the latest WPI in accordance with Para 3.5.1.

**3.5.4.** 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 before obtaining mine opening permission from the 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 3.5.1, 3.5.2 & 3.5.3, the Government may withdraw the mining permission.

**3.5.5. Reimbursement of Escrow Amount:**

i) Up to 50% of the total deposited amount in the previous year excluding interest accrued in the ESCROW account may be released based on work done towards mine closure after every year. The release shall be based on (a) Cost certification by certified auditor (b) Certification of work done by the agencies authorized by the Central Government (**Refer Appendix-V**) or any other institutes/ organizations/ agencies specified from time to time for the purpose. (c) High resolution georeferenced orthorectified multispectral satellite image or drone survey of the mine/blocks along with processed output submitted by the project proponent. The amount released should be equal to the expenditure incurred on the progressive mine closure in the past financial year or 50% of deposited amount, whichever is less. Project Proponent is required to submit the claim by the 30<sup>th</sup> of June and CCO will release the amount by 30<sup>th</sup> of September.

ii) In line with periodic examination of the Closure Plan as per Para 3.4 & 3.7, upto 50 percent of the remaining amount including interest for the progressive closure period in the previous five years shall be released. However, in the year in which 5 yearly reimbursement is claimed, the yearly reimbursement will not be applicable i.e. the 1<sup>st</sup> year of every progressive closure period. The balance amount shall be released to mine owner/leaseholder at the end of the final Mine closure on compliance of all provisions thereof. An illustration in this regard is attached at **Appendix-VI**. The compliance report should be duly signed by the lessee and certifying that said closure of the mine complied all statutory rules, regulations, orders made by the Central or State Government, statutory organizations, court etc. and certified by the Coal Controller. Submission of claims & reimbursement shall be done through the dedicated portal. However, till the development of portal existing system of processing of claims will be continued.

(iii) 90 percent of the balance amount at the end of the post mining closure period shall be released to the mine owner on compliance of all provisions of the Closure Plan duly signed by the mine owner/leasee 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 resources and coal actually mined out.

(iv) A corpus from 10 percent of the balance deposited amount from final mine closure cost is to be created towards Just Transformation. This amount may be utilized by project proponent for socio transition after the closure of the mine in consultation with district administration, local authority and stakeholders.

(v) In the case of fly ash dumping in abandoned mines where mine voids are separable as per Para 4.1 and a separate Mining Plan/Mine closure plans are prepared, only the apportioned amount for the required area for fly ash dumping such as the cost for Top Soil Management & Biological Reclamation, safety and environmental monitoring till the final mine closure and post closure is to be retained. The remaining amount may be released for rest of the area after the completion of post-mining closure activities.

**3.6. Final Mine Closure:** The details of the Mining Plan, covering the 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 mine closure. Final Mine Closure Plan shall also contain a completion report containing operational history; past investigation and remedial efforts if any; mine working maps and drawings; mine water discharge and their uses, GPS coordinates for all salient features, safely accessible open portions of mine workings, dumps, area depillared, partially extracted and standing on pillars, any monitoring and maintenance satellite data and final landscape data etc.

(a) 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 the 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 the Escrow Account created as per Para 3.5.1, and 3.5.2. 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.

**3.7. Time Scheduling for mine closure:** Post mining closure period is to be taken as 3 (three) years and post closure monitoring period will be for 2 (two) years after that. The Action plan for carrying out all mine closure operations (progressive and final mine closure) should be furnished in the form of a bar chart for the period of life of the mine plus post-closure period as specified in **Appendix-VI** but not limited to these activities. The project proponent is mandated to establish targets for closure activities according to the bar chart. Reimbursement of the ESCROW Amount during each progressive and final mine closure phase will be contingent upon the completion of closure work in accordance with the established targets. Project proponent is required to submit the compliance of established target annually to the coal controller.

**3.8.** The funds so generated are towards the financial 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 3.4, 3.5.1, 3.5.2, 3.5.3, & 3.6 above. The mine owner shall undertake to provide the additional fund equivalent to the gap in funding before five years of the end of coal production failing which it may be recovered by such other methods as the competent authority may deem fit in this regard.

- 3.9. Final Closure Certificate:** CCO will issue mine closure certificate to the effect that the protective, reclamation, rehabilitation work and work related to sustainability in accordance with the approved Mining plan covering final mine closure provisions/activities carried out by the mine owner. After successful implementation of the final mine closure activities and post closure monitoring, mine closure will be considered as completed.

## **Chapter-IV**

### **Miscellaneous**

- 4.1. **Fly-Ash Filling:** In the case of flyash filling in operating mines, the same shall be allowed without any modification/revision in the mining plan. However, the scientific and feasibility study is required to be undertaken with due permission of DGMS in case of operating mines. In case of fly ash dumping in the separable mine voids of abandoned mines after the closure of mining activity, the final mine closure plan for the area required for fly ash dumping and balance area shall be prepared separately. The calculation, retainment & reimbursement shall be done as per Para 3.5.1.
- 4.2. **Extraction of Barrier Coal:** With a view to conserve coal reserves, extraction of coal can be optimized to the extent possible, including coal left in barrier in adjoining coal mines. The barrier between boundaries may be allowed to be extracted by mine operators within their respective project area by permitting barrier-less mining of the specified location. The mining plans of each mine shall be submitted along with a conceptual plan for the extraction of coal from adjoining mines having a boundary overlap with the area of barrier coal extraction. An MoU concluded between owners of adjacent mines with regard to barrier coal extraction shall address the safety, environment and other statutory provisions.
- 4.3. **Disposal or Rehandling of Waste Material in Nearby Mines:** For optimum utilization of land resources, minimize transportation of waste or maximize extraction of coal by using the available land or void of nearby mines through handling/rehandling of waste material is allowed. An agreement or Memorandum of Understanding (MoU) shall be signed between the mine owners along with the standard operating procedure to be followed by the respective mine owners. The Mining Plan(s) of both mines must be revised to incorporate and reflect this change. The consent of the respective State Government for this purpose shall be attached in the Mining Plan(s). In the case of allocated or auctioned coal blocks, prior approval of the Nominated Authority is also required.
- 4.4. **Approval of Company Board:** The Mining Plan submitted for approval shall have prior approval of the concerned Board of the Company.
- 4.5. 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.

- 4.6. **Approval Conditions:** (i) The project proponent shall take all necessary precautions regarding safety of mine workings and persons deployed therein and shall adhere to all the statutory norms/guidelines with regards to safety. (ii) Proposed lease area envisaged in the Mining Plan shall not encroach into any other adjacent coal/lignite block unless permitted to do so by the Ministry of Coal in writing. (iii) The approval of the Mining Plan will be without prejudice to the requirement of approvals from competent /prescribed authority under the relevant rules/regulations etc. (iv) 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 (v) Project Proponent should return the forest land within 5 years after completion of Mining Activity.
- 4.7. **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 statutory organizations describing the nature of conditions and compliance thereof, should be indicated in the Mining Plan.
- 4.8. Mining is to be carried out in a phased manner along with reclamation and afforestation work in the mined-out area. 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 paragraphs. 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 the mine void is to be carried out specifically for the closure of the mine, the 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.
- 4.9. The Government may at any time before the closure of the mine require certain activities to be included in the mine closure plans, as considered necessary for the safety and conservation of the environment, or in compliance with any modification/ amendment in the relevant legislation.
- 4.10. **Implementation of the approved Mine Closure Plan** shall be the 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 the other indicating the sequence of operations depending on the geo-mining conditions of the mine.
- 4.11. **Responsibility of the mine owner:** The mine owner shall (i) 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. (ii) submit to the Coal Controller a yearly report before 1<sup>st</sup> 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).

- 4.12. 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 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 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.
- 4.13. If the Coal Controller determines that additional funds are required for mine closure, the project proponent is obligated to deposit the additional amount.

## **Chapter-V**

### **Formulation, submission, scrutiny, approval, revision & timeline of Mining Plan**

- 5.1. **Formulation of Mining Plan by Qualified Person (QP) or Accredited Mining Plan Preparing Agency (AMPPA):** Formulation of Mining Plan shall be done by Qualified Person (QP)/ Accredited Mining Plan Preparing Agency (AMPPA) in accordance with the recognition granted to QP/AMPPA for preparation of mining plan u/s 22B of Mineral Concessions (Amendment) Rules, 2020.
- 5.1.1. No mining plan shall be accepted unless it is prepared by a Qualified Person (QP) or an Accredited Mining Plan Preparing Agency (AMPPA).
- 5.1.2. Quality Council of India (QCI) or National Accreditation Board for Education and Training (NABET) has been engaged for accrediting the following entities:
- (i) Accredited Prospecting Agency (APA) for undertaking prospecting operations and preparation of geological reports for Coal and Lignite Mines, and
  - (ii) QP/Mining Plan Preparing Agency (MPPA) for preparation of mining plan (for Coal, Lignite Mines and Sand for Stowing)
- 5.1.3. 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 specified in Schedule VI of Mineral Concession (Amendment) Rule 2020.
- 5.1.4. Qualified Person (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.
- 5.2. **Submission of Mining Plan:** Every mining plan submitted for approval/revision 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 Technical committee, 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.

- 5.2.1. All pages (including cover page, plates and Annexure) shall bear the signature & stamp furnishing details of the QP/AMPPA in physical mode of submission and e-signature/digital signature during the online system of submission.
- 5.2.2. Project proponent shall register online, using registered official mail ID. For the purpose of preparation of Mining plan through a QP or AMPPA, 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.
- 5.2.3. The QP/AMPPA shall upload the Mining Plan through the temporary login and submit it to the project proponent; once QP/AMPPA submits the Mining Plan to the project proponent, will not be able to modify it.
- 5.2.4. The Project Proponent shall after incorporating relevant company board approvals submit the Mining Plan to the Approving Authority; The Mining Plan submitted to the approving authority shall become visible to Administrative Section for the respective block, members of the Technical Committee, and Coal Controller office. Simultaneously, provision of SMS alerts shall be available at all stages;
- 5.2.5. Mining plans approved by respective Boards of subsidiaries of CIL or CIL same shall be uploaded on SWCS portal within one month of approval whereas approved mining plans (latest) shall be uploaded within 6 months of coming into force of these guidelines. This includes the Mine Closure plans prepared for mines closed before 2009. Furthermore, compliance report as per Para 2.7 of the guidelines also required to be submitted by Coal India Ltd

### 5.3. **Scrutiny and Processing of Mining Plans:**

- 5.3.1. **Technical Committee for making recommendations on Mining Plan:** There shall be a Technical committee notified by Ministry of Coal. Members of this Technical Committee shall examine the Mining Plan from the Technical and administrative aspects.
- 5.3.2. The Technical committee shall recommend the Mining Plan for "Approval" or "Rejection". In case of recommendation for Rejection, the committee shall record the reason for the rejection.
- 5.3.3. The Technical committee shall consist of:
  - a) Head of MP&MC Section/OSD/Senior Officer of CCO Regional Office, New Delhi not below L13 grade (having relevant working experience in mine planning), Member Secretary.
  - b) Director level officer of CCO having relevant working experience, Member
  - c) Director/Deputy Secretary of the section dealing with the respective block and the Director (Tech), Nominated Authority, Members

- d) Director Technical, (MPS section), Member
- e) Officer from CMPDIL having working experience of not less than 15 years in Mining or Mine planning, Member.

5.3.4. Observations of the Committee Members shall be uploaded online and the project proponent shall resubmit the Mining Plan, after incorporating compliance, online.

5.3.5. The Technical Committee shall scrutinize the Mining Plan and submit comments on the portal within Fifteen (15) days of receipt of the Mining Plan. Non-submission of comments within the stipulated time may be presumed as "no comments" to offer. Technical committee, if considered necessary shall make a physical verification of the site, however, no relaxation in the timeline as specified above may be given.

5.3.6. Members of the Technical committee 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 before the Technical committee for scrutiny.

5.4. **Timeline:** Once the observation of the Scrutiny of the Mining Plan is uploaded on the portal (<https://scws.coal.gov.in>), 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 the 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.

5.4.1. The approving authority shall dispose 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 respects, 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.

5.5. **Approval:** Coal Controller Organization, New Delhi has already been delegated with the power of processing, scrutiny and approval of mining Plan.

5.5.1. The person delegated for approval of the 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 the help of an Technical committee constituted for the purpose.

5.5.2. **Communication of Approval:** In case of an allotted/auctioned mine, the CCO shall communicate the decision of the approving authority within a period of 5 (five) working days in the 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 CCO within 3 (three) days of receipt of applicable payments and its confirmation from the Nominated Authority, Govt. of India.

- 5.5.3. While for mines other than auctioned/allotted mines where prior receipt of applicable payments has already been obtained, the CCO shall communicate the decision of the approving authority within a period of 5 working days.
- 5.6. **Circulation of Approved Mining Plans:** CCO shall circulate the copy of approved mining plans along with approval letter to the Ministry of Environment Forest & Climate Change and DGMS through email for information.
- 5.7. **Violation cases:** In case, if any, violation or deviation from the approved mining plan is observed by the Technical committee during the examination, the same shall be communicated to coal controller. The coal controller shall get the matters of deviations examined and shall recommend remedial actions as per statutory provisions to MoC. The coal controller may also revoke the mining plan or withdraw the mine opening permission or pursue legal proceedings against the coal company. Depending on the gravity of the deviation/violation, the CCO has to advise the Technical Committee either to reject the mining plan or examine the mining plan for conditional approval linking with the deviations.
- 5.8. **Removal of difficulties:** Any individual, project proponent, or Technical committee encountering difficulties with the Guidelines may seek clarification from the Ministry of Coal.
- 5.9. **Appeal:** The Secretary (Coal) will be the appellate authority in the matter related to approval/rejection. Project proponent aggrieved by any order made or direction issued in respect of a mining plan by an officer competent to approve mining plans shall within 30 days of the communication of such order or direction, apply for a revision of such order or direction thereon.
- 5.9.1. 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 decision thereon shall be final.
- 5.10. These Guidelines 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.

**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 and Mine Closure Plan /Final Mine Closure Plan
- (ii) Indication: If it is a Revised Mining plan seeking approval under Rule 22E of MCR 1960, it should be marked as "Revised Mining Plan with Modification No." i.e. First Modification, Second Modification etc.
- (iii) Name of the Coal/ Lignite Block area (Hectare)
- (iv) Name of the Coalfield and its location i.e., District(s) and State(s)
- (v) Name and address of the Applicant
- (vi) Targeted capacity
  - a. Rated capacity :in \_\_\_ MTPA
  - b. Peak Capacity (@ 150% of the rated capacity): in \_\_\_ MTPA
- (vii) Name of the **Qualified person/Accredited Mining Plan preparing agency (MPPA)** preparing the Mining Plan with details (Details should be spelt out, e.g., Accreditation no. Validity, Address, e-mail, phone nos., etc.)
- (viii) All Plans must be colored distinctly with proper legends.
- (ix) All Plans must have a north direction/grid. A representative scale, legends in distinctive colours, and Project area boundary.

**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/ Drawings Attached enclosed as Plates**

**E. List of Abbreviations used.**

## CHECKLIST

<i>Details</i>		(✓/X)
Text	<b>Expert-review Report</b>	
Text	<b>Project Information</b>	
Text	<b>Exploration, Geology, Seam Sequence, Coal Quality and Resource</b>	
Text	<b>Mining</b>	
Text	<b>Safety Management</b>	
Text	<b>Infrastructure Facilities proposed and their Location</b>	
Text	<b>Land Requirement</b>	
Text	<b>Environment Management</b>	
Text	<b>Progressive &amp; Final Mine Closure Plan</b>	
<b>Annexure-I</b>	Copy of allotment order Vesting order.	
<b>Annexure-II</b>	<p>Certificate by the <b>Qualified person/ Accredited Mining Plan preparing agency (AMPPA) certifying that</b> project area is confined within the vested/allotted block boundary/ <b><u>existing mining lease</u></b>.</p> <p>Where the project area extends beyond the block boundary, a certificate of <b>Qualified person/ Accredited Mining Plan preparing agency (MPPA)</b> should be supported with a certificates (i) from Mines and Geology Department of the concerned State Government specifying their intent grant of the lease beyond vested geological boundary/Existing Mining Lease, (ii) A certificate from CMPDIL in proof of the non-existence of coal/lignite in the area beyond the vested/allocated boundary area (iii) A certificate of non-workability/non-viability issued or certified by CMPDIL in case of existence of coal. (iv) In case of Coal bearing area, an undertaking/Affidavit that the project proponent will rehandle the OB in a specified time period.</p>	
<b>Annexure-III</b>	Approval of the Company Board	
<b>Annexure-IV</b>	Copy of earlier approval of mining plan.	
<b>Annexure-V</b>	Plan / chart showing the schedule of Implementation of Mine closure activities (progressive and final closure) with the duration of important activities	
<b>Annexure-VI</b>	<b>Expert-Review Report carried out by an Accredited Mining Plan Preparing Agency (MPPA)</b>	
<b>Annexure-....</b>	Other document (if any)	

<i>Details</i>		(√/X)
<b>Plates</b>	Location plan	
<b>Plates</b>	A combined plan showing the required ML, Block Boundary, and Project Boundary. Certification on the conceptual plan must show all three.	
<b>Plates</b>	<p>Plan showing the Block Boundary proposed as per DGPS coordinates given by CMPDIL or the block boundary delineated through DGPS Survey and certified by CMPDIL. QP/AMPPA shall also certify the same.</p> <p>(i) if the block boundary and project area are the same, QP/AMPPA shall certify that the allocated block boundary/existing mining lease and project area are the same.</p> <p>(ii) where the project area extends beyond the block boundary, a Plan certified by a Qualified person/ Accredited Mining Plan preparing agency (MPPA) should be supported with a plan with cardinal coordinates duly certified by the Mines and Geology Department of the concerned State Government. Plan in support of <b>Annexure – II</b>.</p> <p>(iii) In case if Project area is less than the allocated block boundary, QP/AMPPA shall indicate the left-out areas along with the justification for the same.</p>	
<b>Plates</b>	<p>A printed copy of the KML file superimposed in the recent (not older than one year from the base date) dated satellite Image duly certified by an Accredited Agency should also be attached.</p> <p><u>Note:</u> The soft copy of the KML file shall also be part of the Mining Plan.</p>	
<b>Plates</b>	Cadastral plan showing approved block boundary vis-a-vis proposed/existing mining lease & Mine boundary superimposed over it in distinct colour, showing land use and infrastructure etc.	
<b>Plates</b>	Geological plan showing all the boreholes drilled and proposed to be drilled showing allotted block boundary and required lease area	
<b>Plates</b>	Representative Graphic Litholog	
<b>Plates</b>	Surface Plan showing drainage system, Contour, preferably at 3m interval, location of BH (borehole)	
<b>Plates</b>	Conceptual plan showing activities related to the project such as infrastructure facilities including colony, boundary of mining area, mine entries, roads including road diversion alignment etc.	
<b>Plates</b>	Tentative land use plan showing land type (Govt., forest and tenancy land) with its data source	
<b>Plates</b>	Floor contour plan(s) and seam folio plan(s), iso-grade plan(s)	

<i>Details</i>		(√/X)
<b>Plates</b>	Cross-section showing coal/lignite seam(s)	
<b>Plates</b>	Plan showing existing and proposed surface layout(s)	
<b>Plates</b>	Plan showing total coal thickness and overburden thickness and stripping ratio (in case of opencast (OC) Mines)	
<b>Plates</b>	Final stage quarry plan showing haul road alignment (in case of OC Mines)	
<b>Plates</b>	Plan showing mode and location of entries and surface layouts (in case of underground (UG) Mines)	
<b>Plates</b>	Layout of the panel for each system (like Longwall, Continuous Miner, Bord& Pillar, road header etc.) should be given (in case of UG Mines)	
<b>Plates</b>	Layout of pillar extraction (in case of UG Mines)	
<b>Plates</b>	Support system (in case of UG Mines)	
<b>Plates</b>	Haulage and transport system (in case of UG Mines)	
<b>Plates</b>	Post mining land use plan	
<b>Plates</b>	Progressive mine closure plan/ stage plans	
<b>Plates</b>	Reclamation plan	

### Chapter 1: PROJECT INFORMATION

	<b>Parameters</b>	<b>Details</b>
<b>1.1</b>	<b>INTRODUCTION</b>	
1.1.1	Name of Coal / Lignite mine or block	
1.1.2	Name of Coalfield/ Lignite field	
1.1.3	The base date of Mining 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/Despatch	

## 1.2 LOCATION, TOPOGRAPHY AND & COMMUNICATION

1.2.1	Location of coal mine/block (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	Important surface features within the project area and major diversion or shifting involved	

## 1.3 DETAILS OF THE ALLOTMENT AGREEMENT

1.3.1	Name of the Allottee				
1.3.2	Details of allotment/ vesting order				
1.3.3	Name and address of the applicant	<b><u>Regd. Office</u></b> <b><u>Principal Place of Business</u></b>			
1.3.4	Name of the Previous Allottee of the Block				
1.3.5	Date of Mining Opening permission granted by CCO				
1.3.6	Rated Capacity as per CMDPA				
1.3.7	Production Schedule as per opening permission (meeting provisions of CMDPA, if any)				
1.3.8	End Use of Coal/Lignite as per allotment order if any				
1.3.9	Cardinal Point co-ordinates (WGS84) of the Block boundary	<table border="1"> <tr> <td>ID</td> <td>Latitude</td> <td>Longitude</td> </tr> </table>	ID	Latitude	Longitude
ID	Latitude	Longitude			

			1			
			2			

#### 1.4 DETAILS OF THE PREVIOUS APPROVAL OF MINING PLAN

1.4.1	Whether any mining plan has been previously approved					
1.4.2	Title of the Mining Plan					
1.4.3	Base Date					
1.4.4	Submitted By					
1.4.5	Approval Reference, with Date					
1.4.6	Conditions, if any, and compliance	<b>Sl. No.</b>	<b>Conditions</b>	<b>Compliance</b>		
		1.				
		2.				
		3.				
1.4.7	Scheduled year of start of production					
1.4.8	Proposed year of achieving the targeted production					
1.4.9	Date of actual commencement of mining operations, if operations already started					
1.4.10	Likely date of mining operations, if operations not yet started & reasons for non-commencement of operations					
1.4.11	Planned production and actual levels achieved in last 3 (financial year) years (Coal in Mt, OB in Mm <sup>3</sup> , SR in M <sup>3</sup> /t) and in current year till base date	<b>Year</b>	<b>Coal "Mt"</b>		<b>OB</b>	<b>SR</b>
			<b>UG</b>	<b>OC</b>	<b>"MM<sup>3</sup>"</b>	<b>MM<sup>3</sup>/t</b>
		Year 1, Planned				
		Year 1, Actual				
		Year 2, Planned				
		Year 2, Actual				
		Year 3, Planned till base date				
		Year 3, Actual till				

		base date					
1.4.12	Statutory obligations vis-a-vis compliance status in a tabular form						
1.4.13	Reasons for difference between the planned and actual production levels						

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

	Parameters	Approved Mining Plan	Proposed Mining Plan
1.5.1	Allocated Block Area in "Ha"		
1.5.2	Allocated Block Area Projectised "Ha"		
1.5.3	Proposed Mining Lease area "Ha" (Besides, Mineralised zone Lease area may encompass other areas under the definition of a mine)		
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	Geological Block "Ha"		
1.5.8	Production Target "MTPA"		
1.5.9	Seams Available "As per GR"		
1.5.10	Seams not considered for Mining with Reasons		
1.5.11	Gross Geological Reserve "Mt" (as per GR,)		
1.5.12	Net Geological Reserve "Mt" (as per GR)		
1.5.13	Blocked Reserve "Mt"		
1.5.14	Minable Reserve "Mt"		
1.5.15	Extractable Reserve "Mt"		
1.5.16	% of Extraction/ recovery		
1.5.17	Production till date (till the base date of the proposed Mining Plan) Reserve " Mt"		
1.5.18	Balance Extractable Reserve "Mt"		
1.5.19	Average Grade		

	<b>Parameters</b>	<b>Approved Mining Plan</b>	<b>Proposed Mining Plan</b>
1.5.20	OB in Mm <sup>3</sup>		
1.5.21	SR Mm <sup>3</sup> /t		
1.5.22	Mining Technology		
1.5.23	Coal Beneficiation envisaged		
1.5.24	Handling of Rejects		
1.5.25	Land use pattern "Ha"		
i.	Excavation Area		
ii.	Top Soil Dump Area		
iii.	External Dump Area		
iv.	Safety Zone		
v.	Other Use		
vi.	Infrastructure area		
vii.	Green Belt		
viii.	Undisturbed Area		
	<b>Total</b>		
1.5.26	<b>Reasons for revision</b>		

### **1.6.: SUSTAINABILITY**

	<b>Parameters</b>	
1.6.1	No. of Project Affected People (PAPs)	
1.6.2	No. of Working-aged persons	
1.6.3	No. of Skilled/Semi Skilled /Unskilled persons profession wise, gender wise , age wise and location wise	
1.6.4	No. of persons in Vulnerable Groups	
1.6.5	Repurposing of land proposed	
1.6.6	Assessment of possible GHG emissions	
1.6.7.	Measures to curtail GHG emissions	
1.6.8.	Efforts to achieve net zero	

### **Chapter 2: Exploration, Geology, Seam Sequence, Coal Quality And Resource**

	<b>Parameters</b>	<b>Details</b>
<b>2.1</b>	<b>DETAILS OF THE BLOCK</b>	

2.1.1	Name of the Geological Report with month and year of preparation,													
2.1.2	Name of GR Preparing Agency													
2.1.3	Particulars of adjacent Area/ blocks: North, South, East, West	<b>North :</b> <b>South:</b> <b>East:</b> <b>West:</b>												
2.1.4	Location of the Block District / State													
2.1.5	Area of the Block "Ha"													
2.1.6	Area of the geological block projectised "in Ha" (Area of the geological block considered for liquidation of coal resource)													
2.1.7	Balance area yet to be projectised "Ha"													
2.1.8	Likely geological Resource in the area yet to be projectised "MTPA"													
2.1.9	Cardinal Point Co-ordinates of the non-coal/lignite bearing area/ Coal/lignite bearing area within the existing mining lease outside the allotted Geological Coal/Lignite block. (Duly certified in line with Para 2.7 (c) of the Guideline, if fresh mining lease required)	Cardinal Point Co-ordinates of the non-coal (lignite) or coal (lignite) bearing area/exiting mining lease outside the allotted Geological Coal/Lignite block, <b><u>which is proposed to be included in the project area</u></b> <table border="1"> <thead> <tr> <th>ID</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	ID	Latitude	Longitude	1			2					
ID	Latitude	Longitude												
1														
2														
2.1.10	Certificate of Qualified person/ Accredited Mining Plan preparing agency (MPPA) if the project area is confined within the vested/ allotted block boundary/ existing mining lease and  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 certificates i) As the State government is the custodian of exploration data under provisions of Rule 16 of MCR 1960, a certificate from Mines and Geology	<b>Cardinal Points Co-ordinates of the Proposed Lease Area considered in the Mining Plan</b> <table border="1"> <thead> <tr> <th>ID</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table> <b>Note:</b> Certificate should be given on conceptual plan envisaged in the proposed mining plan depicting OB area, infrastructure locations, boundaries and cardinal point co-ordinates of the lease area, block area, project area; In case the project boundary extends beyond the allotted geological block boundary/ <b><u>Existing</u></b>	ID	Latitude	Longitude	1			2					
ID	Latitude	Longitude												
1														
2														

	Department of the concerned State Government specifying their intent grant of the lease beyond vested geological boundary/Existing Mining Lease, (ii) A certificate from CMPDIL in proof of the non-existence of coal/lignite in the area beyond the vested/allocated boundary area (iii) A certificate of non-workability/non-viability issued or certified by CMPDIL in case of existence of coal. (iv) In case of Coal bearing area, an undertaking/Affidavit that the project proponent will rehandle the OB in a specified time period.	<b>mining lease</b> certificate of occurrence/non-occurrence of coal should be clearly shown.  Certificate should envisage that the Georeference Co-ordinates considered for preparation of Mining plan is in line with Vesting allotment order and does not encroach any other adjacent block, and the said area in case any proposed infrastructure or OB dump is outside the block area;  The Project area, Lease area and geological block area in 'Ha" shall also be envisaged.
2.1.11	KML file of the Proposed lease area, Project Area and geological block.	<b>Note:</b> Printed copy of the KML file superimposed in the recent (not older than one year from the base date) dated satellite Image duly certified by Accredited Agency should also be attached.  Note: The soft copy of the KML file shall also be part of the soft copy of the Mining Plan.
2.1.12	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.	
2.1.13	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	
2.1.14	Type of the Project (Operating under implementation) and year of Starting.	

<b>2.2</b>	<b>EXPLORATION, GEOLOGY AND ASSESSMENT OF RESERVE</b>	
2.2.1	Regional geological set up of the area, 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 mining area of 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 mining area (no./ sq. km) approx.																																																																																												
2.2.11	No of Seams available as per GR																																																																																												
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																																																																																												
	<table border="1"> <thead> <tr> <th rowspan="2">Seam</th> <th rowspan="2">Thickness range, m</th> <th rowspan="2">Depth Range, m</th> <th rowspan="2">Net Geological reserve 'Mt'</th> <th colspan="5">Blocked Resources below</th> <th colspan="2">Mineable Resource 'Mt'</th> <th rowspan="2">Mining Losses</th> </tr> <tr> <th>Highwall/Batter</th> <th>Surface features</th> <th>Barrier</th> <th>Un-economic</th> <th>Total Blocked</th> <th>UG</th> <th>OC</th> </tr> </thead> <tbody> <tr><td></td><td></td><td></td><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><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><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><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><td></td><td></td><td></td></tr> <tr> <td colspan="4"><b>Total</b></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table>	Seam	Thickness range, m	Depth Range, m	Net Geological reserve 'Mt'	Blocked Resources below					Mineable Resource 'Mt'		Mining Losses	Highwall/Batter	Surface features	Barrier	Un-economic	Total Blocked	UG	OC																																																													<b>Total</b>												
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	<p>Note : Break-up of the geological reserve for the block, considered in the proposed mining plan, to be projected later and that likely to be sterilized to be given seam wise along with the relevant plans.</p>																																																																																												

2.2.15	Methodology of resources estimation (also mention if any software package has been used).	(In Maximum 500 Words)
<b>2.2.16</b>	<b>Average GCV "KCal/kg"</b>	
2.2.17	Gross Geological Reserve of the block "Mt"	
2.2.18	Net Geological Reserve of the block "Mt"	
2.2.19	Minable Reserve of the block "Mt"	
2.2.20	Blocked Reserve "Mt"	
2.2.21	Corresponding extractable Reserve of the block "Mt"	
2.2.22	Percentage of Extraction	
2.2.23	Resource already depleted (Base date of Mining Plan)	
2.2.24	Balance Resource (as on Base Date)	

### Chapter 3: Mining

	<i>Parameters</i>	<i>Details</i>
<b>3.1</b>	<b>MINING METHOD</b>	
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"> <li>• Seams to be worked, Choice of Mining Method and justification for Optimization of targeted capacity, sequence of mining, production scheduling, equipment configuration etc.</li> <li>• Behaviour of coal roof &amp; 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).</li> <li>• 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.</li> <li>• <b>Location of Mine Opening:</b> In case of opencast mines, location of Access trench &amp; 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 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 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 &amp; justification thereof.</li> <li>• In case of underground mining, number and location, length &amp; 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.</li> </ul>
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		<ul style="list-style-type: none"> <li>• Seams to be worked, method of working, optimization of coal roof &amp; 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, the extent of working 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, (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).</li> <li>• Adequacy of ventilation system taking into account the development works with supporting calculations, specifications of Main Mechanical Ventilator, blasting requirements and requirement of explosives, the requirement in mass production technology (CMs/LWs), pumping requirements, and standby arrangements. (In Maximum 2000 Words)</li> </ul>																																																													
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	The calendar year from which the production will start																																																														
3.1.6	Year of Achieving rated production																																																														
3.1.7	Tentative 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 "MM<sup>3</sup>,</th> <th rowspan="2">SR Cum/t</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">Before Year 1</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Y-1</td> <td></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> <tr> <td colspan="2"><b>Sub-Total (From First Year)</b></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Year		Coal Production Schedule			OB "MM <sup>3</sup> ,	SR Cum/t	Year of Operation	Calendar Year	UG	OC	Total	Before Year 1							Y-1							Y-2							Y-3							Y-4							Y-5							<b>Sub-Total (From First Year)</b>						
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		Total				
Note: Calendar Plan / Production Plan for the entire life of the mine.						
3.1.8	<b>Rated Capacity “MTPA”</b>					
	- By OC					
	- By UG					
	- Overall					
3.1.9	<b>Life of the mine : “Years”</b>					
	- By OC		e.g., 40 years (From 1 <sup>st</sup> year to 40 <sup>th</sup> year)			
	- By UG		e.g.,20 years (From 31 <sup>st</sup> year to 50 <sup>th</sup> year)			
	- Overall		e.g.,50 Years			
3.1.10	Whether the proposed external OB dump site is coal/ lignite bearing: If so, whether coal/lignite below the waste disposal area is extractable, If so, by OC or UG method					
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>
<b>4.1</b>	<b>Safety Management &amp; SHM Audit</b>	
4.1.1	<b>Important safety aspects:</b> Major Risks and uncertainties to the project viz. Proximity to river, adjacent working, geo-mining disturbances, slope stability and remedial measures suggested. It should also include the 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. Every mine should conduct a safety audit based on Safety Health Management Audit Guidelines.	(Maximum 500 Words)
4.1.2	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.	(To be furnished as a Part of Annexure-III)

**Chapter 5: Infrastructure Facilities**

	<i>Parameters</i>	<i>Details</i>																																							
5.1	Mine infrastructure required e.g., Equipment maintenance planning, Office buildings, Workshop, Power supply arrangement, Water supply etc.	<p>(Tabular Form) (Location to be shown in Conceptual Plan/Plates)</p> <table border="1" data-bbox="609 456 1449 775"> <thead> <tr> <th data-bbox="609 456 724 546">Sl. No.</th> <th data-bbox="724 456 1331 546">Facilities/ infrastructure to be retained</th> <th data-bbox="1331 456 1449 546">Area, Ha</th> </tr> </thead> <tbody> <tr> <td data-bbox="609 546 724 622">1.</td> <td data-bbox="724 546 1331 622"></td> <td data-bbox="1331 546 1449 622"></td> </tr> <tr> <td data-bbox="609 622 724 676">2.</td> <td data-bbox="724 622 1331 676"></td> <td data-bbox="1331 622 1449 676"></td> </tr> <tr> <td data-bbox="609 676 724 730">3.</td> <td data-bbox="724 676 1331 730"></td> <td data-bbox="1331 676 1449 730"></td> </tr> <tr> <td data-bbox="609 730 724 775"></td> <td data-bbox="724 730 1331 775"><b>Total</b></td> <td data-bbox="1331 730 1449 775"></td> </tr> </tbody> </table> <table border="1" data-bbox="609 810 1449 1279"> <thead> <tr> <th data-bbox="609 810 724 900">Sl. No.</th> <th data-bbox="724 810 1331 900">Facilities/ infrastructure to be Dismantled</th> <th data-bbox="1331 810 1449 900">Area, Ha</th> </tr> </thead> <tbody> <tr> <td data-bbox="609 900 724 976">1.</td> <td data-bbox="724 900 1331 976"></td> <td data-bbox="1331 900 1449 976"></td> </tr> <tr> <td data-bbox="609 976 724 1030">2.</td> <td data-bbox="724 976 1331 1030"></td> <td data-bbox="1331 976 1449 1030"></td> </tr> <tr> <td data-bbox="609 1030 724 1084">3.</td> <td data-bbox="724 1030 1331 1084"></td> <td data-bbox="1331 1030 1449 1084"></td> </tr> <tr> <td data-bbox="609 1084 724 1137"></td> <td data-bbox="724 1084 1331 1137"></td> <td data-bbox="1331 1084 1449 1137"></td> </tr> <tr> <td data-bbox="609 1137 724 1191"></td> <td data-bbox="724 1137 1331 1191"></td> <td data-bbox="1331 1137 1449 1191"></td> </tr> <tr> <td data-bbox="609 1191 724 1245"></td> <td data-bbox="724 1191 1331 1245"></td> <td data-bbox="1331 1191 1449 1245"></td> </tr> <tr> <td data-bbox="609 1245 724 1279"></td> <td data-bbox="724 1245 1331 1279"><b>Total</b></td> <td data-bbox="1331 1245 1449 1279"></td> </tr> </tbody> </table>	Sl. No.	Facilities/ infrastructure to be retained	Area, Ha	1.			2.			3.				<b>Total</b>		Sl. No.	Facilities/ infrastructure to be Dismantled	Area, Ha	1.			2.			3.													<b>Total</b>	
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5.2.	Power supply & illumination.	(Max 500 Words) (Location to be shown in Plates)																																							
5.3	Drainage & Pumping: Assessment of Volume of Water for Pumping, Pumping Capacity and Pump Selection	(Max 500 Words) (Location to be shown in Plates)																																							
5.4	Coal Handling Arrangement: Brief detail of the CHP/ Mode of Dispatch, Coal quality and Coal staking and handling arrangement	(Max 500 Words) (Location to be shown in Plates)																																							
5.5	Coal washing and the proposed handling/ disposal of rejects.	(Max 500 Words) (Location to be shown in Plates) Annual Raw coal Feed plan and product with reduction in ash% from feed to product must be furnished in a tabular form																																							

**Chapter 6: Land Requirement**

	<i>Parameters</i>	<i>Details</i>																																								
6.1	<b>LAND REQUIREMENT</b>																																									
6.1.1	Total Land requirement for the mine in "Ha"	<p><i>Break up of pre-mining land type (indicative) and source of data.</i></p> <table border="1"> <thead> <tr> <th colspan="2" data-bbox="667 414 956 450"><b>Land Type</b></th> <th data-bbox="1265 414 1398 450"><b>Area</b></th> </tr> </thead> <tbody> <tr> <td data-bbox="667 450 956 790" rowspan="7">Tenancy</td> <td data-bbox="956 450 1265 497">Agricultural</td> <td data-bbox="1265 450 1398 497"></td> </tr> <tr> <td data-bbox="956 497 1265 544">Township</td> <td data-bbox="1265 497 1398 544"></td> </tr> <tr> <td data-bbox="956 544 1265 591">Grazing</td> <td data-bbox="1265 544 1398 591"></td> </tr> <tr> <td data-bbox="956 591 1265 638">Barren</td> <td data-bbox="1265 591 1398 638"></td> </tr> <tr> <td data-bbox="956 638 1265 685">Water Bodies</td> <td data-bbox="1265 638 1398 685"></td> </tr> <tr> <td data-bbox="956 685 1265 732">Road</td> <td data-bbox="1265 685 1398 732"></td> </tr> <tr> <td data-bbox="956 732 1265 779">Community/other use</td> <td data-bbox="1265 732 1398 779"></td> </tr> <tr> <td data-bbox="667 790 956 983" rowspan="4">Govt. Non-Forest</td> <td data-bbox="956 790 1265 837">Agricultural</td> <td data-bbox="1265 790 1398 837"></td> </tr> <tr> <td data-bbox="956 837 1265 884">Township</td> <td data-bbox="1265 837 1398 884"></td> </tr> <tr> <td data-bbox="956 884 1265 931">Grazing</td> <td data-bbox="1265 884 1398 931"></td> </tr> <tr> <td data-bbox="956 931 1265 978">Barren/other use</td> <td data-bbox="1265 931 1398 978"></td> </tr> <tr> <td data-bbox="667 983 956 1128" rowspan="3">Forest</td> <td data-bbox="956 983 1265 1030">Resource</td> <td data-bbox="1265 983 1398 1030"></td> </tr> <tr> <td data-bbox="956 1030 1265 1077">Protected</td> <td data-bbox="1265 1030 1398 1077"></td> </tr> <tr> <td data-bbox="956 1077 1265 1124"></td> <td data-bbox="1265 1077 1398 1124"></td> </tr> <tr> <td data-bbox="667 1128 956 1176">Free Hold</td> <td data-bbox="956 1128 1265 1176"></td> <td data-bbox="1265 1128 1398 1176"></td> </tr> <tr> <td align="center" data-bbox="667 1176 956 1223"><b>Total</b></td> <td data-bbox="956 1176 1265 1223"></td> <td data-bbox="1265 1176 1398 1223"></td> </tr> </tbody> </table>	<b>Land Type</b>		<b>Area</b>	Tenancy	Agricultural		Township		Grazing		Barren		Water Bodies		Road		Community/other use		Govt. Non-Forest	Agricultural		Township		Grazing		Barren/other use		Forest	Resource		Protected				Free Hold			<b>Total</b>		
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<b>Total</b>																																										
6.1.2	During mining Land use details:																																									

Type	Land use (Proposed)	Land Use (End of Life)	Land Use (Post Closure)							Total
			Agricultural land	Plantation	Water Body	Public/Company Use	Forest Land (Returned)	Undisturbed		
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 near pit										
UG entry										
Undisturbed/ Mining right for UG										
Resettlement										
Pit head washery/ power plant										
Water harvesting										
Agricultural land										
<b>Total</b>										
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									

<b>6.2</b>	<b>DETAILS OF LEASE</b>	
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 Boundary/Existing Mining Lease	
6.2.9	<b>Details of outside area:</b>	
	Whether forms part of any other coal block	
	Whether it contains any coal/lignite reserve	
	Purpose for which it is required, e.g., roads/ OB dumps/ service buildings/ colony/ safety zone/ others (specify)	
6.2.10	<b>Whether some part(s) of the allotted block has not been applied for mining lease.</b>	
	Total area in Ha of such part(s).	
	Total resources in such part(s). (Mt)	
	Brief reasoning for leaving such part(s)	



**Chapter 7: Environmental Management**

	<i>Parameters</i>	<i>Details</i>
<b>7.</b>	<b>ENVIRONMENTAL MANAGEMENT</b>	
7.1	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.	

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## Chapter 8: PROGRESSIVE & FINAL MINE CLOSURE PLAN

	<i>Parameters</i>	<i>Details</i>							
<b>8.1</b>	<b><i>Land Degradation and restoration Schedule</i></b>								
8.1.1	Tentative Land Degradation and Technical Reclamation (Commutative Area "Ha")								
	<b>Stage/ Year</b>	<b>Land Degraded</b>				<b>Technically Reclaimed Area</b>			
		<b>Excav.</b>	<b>Dump (Extn + Top Soil)</b>	<b>Infra/ others</b>	<b>Total</b>	<b>Backfill /Stowi ng</b>	<b>Dump (Extn+ + Top Soil)</b>	<b>Others</b>	<b>Total</b>
	<b>Up to Base year *</b>								
	Y-1								
	Y-3								
	Y-5								
	Y-10								
	Y-15								
	Y-20								
	Y-25								
	Y-30								
	Y-33								
	<b>Post Mining Closure</b>								
	Y-36								
	<p>*-Considering Base year i.e. 2024-25 and life of 36 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 <b>i.e First year of development.</b> <b>Stages of</b> reclamation and restoration of land should be given for 1st, 3rd, 5<sup>th</sup>, 10<sup>th</sup> and subsequently every five year for the entire life of the project and for 3 years post-mining closure.</p>								
8.1.2	<b>Tentative Biological Reclamation (Cumulative in "Ha")</b>								
	<b>Year/Stage</b>	<b>Biologically Reclaimed Area</b>					<b>Forest land (Return )</b>	<b>Un Disturbed/ To be left for Public/co m Use</b>	<b>Total</b>
		<b>Agric ul- ture</b>	<b>Plantati on</b>	<b>Water Body</b>	<b>Public/ Company Use</b>	<b>Total</b>			

	<b>Up to Base year</b>									
	Y-1									
	Y-3									
	Y-5									
	Y-10									
	Y-15*									
	Y-20									
	Y-25									
	Y-30									
	Y-33									
	<b>Post Mining Closure</b>									
	Y-36									
	<p><b>Stages of</b> reclamation and restoration of land should be given for 1<sup>st</sup>, 3<sup>rd</sup>, 5<sup>th</sup> , 10<sup>th</sup> and subsequently every five year for the entire life of the project and for 3 years post mining closure.</p>									
8.2	<b>Post Closure Water Quality management:</b>	<p>(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;)</p>								
8.3	<b>Post Closure Air Quality management</b>	<p>(Max 200 Words)</p>								
8.4	<b>Waste Management (Figures in MM<sup>3</sup>) (Tentative)</b>									

Year/Stage	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									
Y-3									
Y-5									
Y-10									
Y-15									
Y-20									
Y-25									
Y-30									
Y-33*									
Post Mining Closure									
Y-36									

\* - Considering the production life of 33 years in this case

Stages at 1<sup>st</sup>, 3<sup>rd</sup>, 5<sup>th</sup>, 10<sup>th</sup> and subsequently every five years for the entire life of the project and 3 years post mining closure

**8.5 Top Soil Management — (Including Action plan for Top Soil management) (Tentative) (All Figures are Cumulative and in MM<sup>3</sup>)**

Year/Stage	Top Soil Removal Plan	Top Soil Used					Total Utilised
		Spreading Over Embankment	Spreading over Backfill area	Spreading over External OB Dump area	Used in Green Belt area		
Up to Base year							
Y-1							
Y-3							
Y-5							
Y-10							
Y-15							
Y-20							
Y-25							
Y-30							
Y-33*							
<b>Post Mining Closure</b>							
Y-36							

Considering the production life of 33 years in this case

Stages at 1<sup>st</sup>, 3<sup>rd</sup>, 5<sup>th</sup>, 10<sup>th</sup> and subsequently every five year for the entire life of the project and for 3 years post mining closure

8.6	Management of Coal Rejects.				
8.7	Restoration of Land used for Infrastructure				
8.8	Disposal of Mining Machinery				
8.9	Safety & Security				
<b>8.10</b>	<b>Mine Closure Cost and Financial Assurance</b>				
<b>8.10.1</b>	<b><u>Mine Closure Cost:</u></b>				
<b>Cost of Activities to be taken up for closure of the mines</b>					
Head	Particulars	Unit	Proposed Mine Closure Activities Cost		
			Quantity	Rs ₹/ Unit	"Rs.Cr"
<b>A. Progressive Mine Closure</b>	Barbed wire fencing around the mine (Pit & Dump)	m			
	Waste Management	MCum			
	Filing of Void - Rehandling of Dump (Not carried out as part of regular mining operation)	MM3			
	Top soil Management	MM3			
	Technical and Biological Reclamation of mined out 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			
	Stowing				
	Subsidence Monitoring & Management				
	Isolation Stoppings				
	Any other activities				
	<b>Sub Total (A)</b>				
<b>B. Post Closure Activities</b>					
	Dismantling of Workshop	LS			
	Dismantling of CHP	LS			
	Dismantling of mine structures				
	Dismantling of Civil structures	LS			

Dismantling of Infrastructure & Disposal/ rehabilitation of Mining machinery	Rehabilitation of dismantled facilities	LS			
	Dismantling of pumps and Pipes/ other facilities	LS			
	Dismantling of stowing bunkers, provisioning of pumps for bore well pumping arrangement				
	Dismantling of UG equipment	LS			
	Rearranging water pipeline to dump top park Agricultural land	LS			
	Dismantling of Power lines	LS			
	<b>Sub total</b>				
	Safety and Security	Barbed wire fencing around mine (Pit & dumps)	m m m		
Concrete wall with masonry / concrete pillars around the pit		m			
Securing enteries (shaft/inclines)		Nos.			
Securing of Inclines		Nos.			
Appropriate fencing around the water body		m			
installation of bore well pump					
Stabilisation  viz., benching, pitching et) of side walls of the water body		LS			
Toe Wall around the dump		m			
Garland drain		m			
Drainage Channel from main OB dump		m			
<b>Sub total</b>					
Filing of Void OB Rehandling for backfilling Terracing, blanketing with soil and vegetation of Extremal OB Dump	Filing of Void	Mm3			
	OB Rehandling for backfilling	Mm3			
	Terracing, blanketing with soil and vegetation of Extremal OB Dump	ha			

	Technical and Biological Reclamation of Mined out of land and OB dump	peripheral road, gates, view point, cemented steps on bank				
		Expenditure on development of Agricultural land				
		Landscaping and Plantation				
		<b>Sub total</b>				
	Post Closure Monitoring and supervision	Power Cost				
		Post Mining Water quality management				
		Post Mining Air quality management				
		Subsidence monitoring for 5 years				
		Manpower Cost and supervision				
		<b>Sub total</b>				
	Sustainability	Entrepreneurship development (vocational skill development training for sustainable income of affected people)				
		Onetime financial grant societies /institutions organisations which is dependent upon the project				
		Provide jobs in other mines of the company				
		Repurposing activities such as agriculture, pisciculture, eco-park, recreational, landscaping, waterbody conservation, irrigation etc. wherever it is applicable				
		%age of PAP for whom alternate arrangements made for sustained livelihood (Indirect employment/Created source of income other than direct employment)				
		Continuation of other services like running of schools etc.				

		Organisation of health check up camps				
		Any Other Steps for Improving the Socio-Economic Standards of Local Communities				
		<b>Sub Total (B)</b>				
	<b>Grand Total (A+B)</b>					
<b>8.10.2</b>	<b><u>Financial Assurance</u> : Amount to be deposited in Escrow account as a security against the mine activities to be carried out for the closure of the mine</b>					

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WPI as on	Jan-24		151.20
WPI as on-base date	March-24		151.80
Escalation rate of Financial assurance			1.004
		<b>UG</b>	<b>OC</b>
The base Rate of Financial assurance amount "Rs. ₹Crs./Ha"		0.02	0.15
Financial assurance amount "₹. Crs/Ha"		0.02008	0.1506
Project Area			
Amount to be deposited into Escrow Account "Rs.(₹) in Crs"			
The amount already deposited into Escrow Account "Rs.(₹) in Crs"			
Net Amount to be deposited into Escrow Account "Rs.(₹) in Crs"			
Rate of compounding of Annual Financial assurance amount			
Balance production Life of the project "in Yrs"			
Annual Financial assurance amount			
<b>Amount to be deposited into Escrow Account after compounding @ of 5% (₹in Crs)</b>			
* <b>Base date considered is 31.03.2024 and life of the mine considered is ... years from 20...-</b>			

  

Amount to be deposited into Escrow Account annually ("Rs.₹ in Crs")				
Year	OC	Year	UG	Total
1				
2				
3				
<b>Total</b>				

## ANNEXURES

	<i>Parameters</i>	<i>Details</i>	
I	Copy of allotment order /Vesting order.	<b>Mandatory Document</b>	<b>Annexure - I</b>
II	<p><b>Certificate of Qualified person (QP) /Accredited Mining Plan preparing agency (MPPA) if the project area is confined within the vested/allotted block boundary/ <u>existing mining lease area.</u></b></p> <p>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 certificates (i) from Mines and Geology Department of the concerned State Government specifying their intent grant of the lease beyond vested geological boundary/Existing Mining Lease, (ii) A certificate from CMPDIL in proof of the non-existence of coal/lignite in the area beyond the vested/allocated boundary area (iii) A certificate of non-workability/non-viability issued or certified by CMPDIL in case of existence of coal. (iv) In case of Coal bearing area, an undertaking/Affidavit that the project proponent will rehandle the OB in a specified time period.</p>	<p style="text-align: center;"><b>Mandatory Document</b></p> <p><b>Note:</b> 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, and project area;</p> <p>In case the project boundary extends beyond the allotted geological block boundary certificate of non-occurrence/Non-workability/ non-viability of coal should be clearly shown.</p> <p>The certificate should envisage that the Cardinal Point Co-ordinates considered for preparation of the Mining plan is in line with the Vesting/allotment order and do not encroach any other adjacent block, and non-coal bearing/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 mentioned.</p>	<b>Annexure - II</b>
III	<b>Approval of the Company Board</b>	<p>Approvals of Mining Plan form the Board of the company giving an undertaking for the correctness of data used in the preparation of Mining Plan;</p> <p>Details of the Qualified Person (QP)/ Accredited Mining Plan</p>	<b>Annexure - III</b>

		<p>preparing agency (AMPPA) with certification that the eligibility of the Qualified person /Accredited Mining Plan preparing agency has been verified.</p> <p>Acceptance of the Mining Plan by the company board with a recommendation for approval;</p> <p>Undertaking that the mine will be developed as per the approval of the mining plan from the Ministry of coal and all other approvals, as required will be obtained from relevant authorities</p> <p>Commitment that the 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 &amp; wherever specific permission will be required the company will approach the concerned authorities.</p> <p>Financial Assurance for implementation</p> <p>Undertaking that the reclamation &amp; rehabilitation work shall be carried out in accordance with the approved Mine Closure Plan and any modification /amendments that may be made in the Mine Closure Plan by the Ministry of Coal, from time to time.</p> <p>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</p>	
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		<p>envisaged in the approved mine closure plans (Progressive and Final Closure;</p> <p>Undertaking that they will obtain a mine closure certificate from the 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.</p>	
IV	Copy of earlier approval of mining plan.	<b>Mandatory Document</b>	<b>Annexure - IV</b>
V	Plan/chart showing schedule of Implementation of Mine closure activities (progressive and final closure) with duration of important activities	<b>Mandatory Document</b>	<b>Annexure - V</b>
VI	Non-refundable Application Fee	<b>Proof of the payment</b>	<b>Annexure - VI</b>
VII	Expert-Review Report	<b>Carried out by Accredited Mining Plan Preparing Agency (MPPA)</b>	<b>Annexure - VII</b>
VIII	Other document (if any)		<b>Annexure- .....</b>

## PLANS/ PLATES

I	Location plan	
II	<p>Plan certified by <b>Qualified person (QP) / Accredited Mining Plan preparing agency (MPPA)</b> 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 <b>Qualified person (QP) / Accredited Mining Plan preparing agency (MPPA)</b> should be supported with a plan with cardinal point co-ordinates duly certified by the State Government mines and Geology department.</p> <p><b>Plan in support of Annexure - II</b></p>	<p><b>Plan in support of Annexure - II</b></p> <p><b>Note:</b> Certificate should be given on conceptual plan envisaged in the proposed mining plan depicting OB area, infrastructure locations and cardinal Point co-ordinates of the lease area, block area, and project area;</p> <p>In case the project boundary extends beyond the allotted geological block boundary certificate of non-occurrence/Non-workability/ non-viability of coal should be clearly shown.</p> <p>The certificate should envisage that the Cardinal Point Co-ordinates considered for preparation of the Mining plan is in line with the Vesting/allotment order and do not encroach any other adjacent block, and non-coal bearing/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 area, Project Area and geological block.	<p><b>Note:</b> A printed copy of the KML file superimposed in the recent (not older than one year from the base date) dated satellite Image duly certified by Accredited Agency should also be attached.</p> <p>The soft copy of the KML file shall also be part of the Soft copy of the mining Plan.</p>
IV	Cadastral plan showing approved block boundary vis-à-vis proposed/existing mining lease & Mine boundary superimposed over it in distinct color, showing land use and infrastructure etc.	
V	Geological planshowing 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	Tentative land use plan showing land type (Govt., forest and tenancy land) with its data source	

X	Floor contour plan and seam folio plan, ISO-grade plan	Seam	Floor Contour	Seam Folio
XI	X-section showing coal/Lignite seams			
XII	Plan showing existing and proposed surface layout			
	<b>OPENCAST (OC) MINES</b>			
XIII	Plan showing total coal thickness and overburden thickness and stripping ratio			<b>OC</b>
XIV	Final stage quarry plan showing haul road alignment			<b>OC</b>
	<b>UNDER GROUND (UG) MINES</b>			
XV	Plan showing mode and location of entries and surface layouts			<b>UG</b>
XVI	Layout of the panel for each system (like Longwall, Continuous Miner, Bord& Pillar, road header etc.)			<b>UG</b>
XVII	Layout of pillar extraction			<b>UG</b>
XVIII	Support system			<b>UG</b>
XIX	Haulage and transport system			<b>UG</b>
	<b>CLOSURE PLAN</b>			
XX	Post mining land use plan			
XXI	Progressive mine closure plan/ stage plan indicating stages at 1 <sup>st</sup> , 3 <sup>rd</sup> , 5 <sup>th</sup> , 10 <sup>th</sup> year of achieving rated capacity of the mine 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.	
		1 <sup>st</sup>		
		3 <sup>rd</sup>		
		5 <sup>th</sup>		
		PRC		
		End of Life		
XXII	Reclamation plan			

F. No. CPAM-34011/28/2019-CPAM-Part (2) [359539]

Government of India  
Ministry of Coal  
(MPS Section)  
\*\*\*\*\*

Room No. 622-A, Shastri Bhawan, New Delhi

Dated: the 29th May, 2024.

To

Chairman, Coal India Ltd.

**Subject: Approval of Mining Plan/Mine Closure Plans of Coal/Lignite projects-reg.**

I am directed to refer to the above subject and to state that Mining Plans/Mine Closure Plans of Coal India Limited [CIL] and its subsidiaries are not required to be approved by the Coal Controller under Guidelines for preparation, Formulation, Submission, Processing, Scrutiny, Approval and Revision of Mining Plan for the coal and lignite blocks dated 29.05.2020 for obtaining lease in case of areas of Nationalized mines acquired under Coal Bearing Areas [Acquisition and Development] Act, 1957.

2. Mining Plans of projects of CIL, its subsidiaries are thus prepared by CMPDIL and the project reports subsequently prepared and approved by the Board of CIL/ Coal companies or Ministry of Coal as per delegated powers.

3. CIL, its subsidiaries, NLC India Ltd. and Singareni Collieries Company Limited [SCCL] are required to prepare Mining Plans for obtaining leases/renewal of mining leases for areas acquired under LA Act for non-nationalized areas under MC Rule, 1960 and obtaining the approval of Coal Controller.

4. Mining plans of MDOs and Revenue sharing projects of CIL prepared by Mining Plan Preparing Agencies [MPPAs] may be approved by CIL/ its Subsidiaries after due scrutiny, vetting and recommendation by CMPDIL. These need not be submitted to CCO for approval.

5. This order will supersede all earlier orders issued in this regard.

This issues with the approval of the competent authority.

Encl.: As above



(Sanjeev Ranjan)

Under Secretary to Govt. of India, Ministry of Coal

S. No.	Type of Equipment	Standardized sizes/Capacity	
1.	Dragline	The size will depend on the specific geo-mining conditions. Newer and larger models can be introduced depending on the specific requirement	
2.	Rope Shovels	20 M3	
3.	Hydraulic Excavators	Face Shovels	Backhoe
		5.5 – 6.5m <sup>3</sup>	5 -6 m <sup>3</sup>
		10-12 m <sup>3</sup>	10-12 m <sup>3</sup>
		20-23 m <sup>3</sup>	20-23 m <sup>3</sup>
4.	Rear Dumper	60 T (US Ton)	
		100 T (US Ton)	
		200 T (US Ton)	
5.	Drills	160 mm	
		250 mm	
		311 mm*	
6.	Crawler Dozers	310-330 HP	
		400-420 HP	
		850-900 HP	
7.	Wheel Dozers	450-500 HP	
8.	Wheeled Loaders	6-7 m <sup>3</sup>	
		10-12 m <sup>3</sup>	
9.	Motor Graders	270-290 HP	
		500-550 HP	

\* Subject to techno-economical study considering cost of equipment, expected utilization, explosive consumption/powder factor.

# A typical combination presented above, however not limited to.



**Criteria for Non-workability under Para 2.6 (c) of the Guidelines**

All coal resources outside the coal block shall be analyzed for both opencast and underground mining methods. For which the following criteria of non-workability may be considered:

**Opencast:**

Any coal seam or section of the coal seam may be defined as non-workable by the opencast mining method if at least one of the following conditions is fulfilled.

1. The ratio of average depth to average combined thickness is more than 25 for good grade coal and 15 for poor grade coal. For the purpose of classification of grade, coking coal and non-coking coal of G-8 and better can be considered as “Good Grade” and other grades as “Poor Grade”.
2. Coal resource which is not considered for geological resource estimation as per ISP norms 2022.

**Underground:**

Any coal seam or section of the coal seam may be defined as non “workable” by underground mining method if at least one of the following conditions is fulfilled.

1. Seams/ section with thickness less than 1.2 m.
2. Patchy seams/sections where panels of reasonable size cannot be formed or will require extensive drifting.
3. If the seam thickness is less than 2 m with a gradient steeper than [1:3.5].
4. Coal resources are classified as Jhama formation of non-commercial value.

Agencies for Assessment and Certification of works done of Mine Closure Activities of coal and lignite mines as per approved Mine Closure Plan (Progressive & Final)

1. Central Mine Planning and Design Institute (CMPDIL)
2. National Environmental Engineering Research Institute (NEERI)
3. Indian Institute of Technology- Indian School of Mines, Dhanbad (IIT-ISM)
4. Indian Institute of Technology Kharagpur
5. Indian Institute of Engineering Science and Technology, Shibpur (IEST, Shibpur)
6. Any other agencies authorized by the Central Government.

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Bar Chart (Target)											
S. No.	Heads	Activities	Progressive Mine Closure Activities				Final Mine Closure activities			Post closure monitoring	
			Y1	Y2	Y3	Y5	Y1	Y2	Y3	Y1	Y2
1	<b>Progressive Mine Closure Activities</b>	Barbed wire fencing around the Mine (Pit & Dump)									
2											
3		Waste Management									
4											
5		Top soil management Technical and biological reclamation of mined out land and OB dump									
6											
7		Plantation over virgin area including Green Belt									
8											
9		Manpower cost and supervision									
10											
11		Toe wall around the dump									
12											
13		Garland drain									
14											
15		Stowing									
16											
		Subsidence monitoring & management									
		Isolation stopping									
		Any other if any									
		<b>Sub Total</b>									
	<b>Final Closure Activities</b>										
1		Dismantling of workshop									

2	<b>Dismantling of Infrastructure, disposal of mining machinery</b>	Dismantling of pumps and pipes/other facilities				
3		Dismantling of UG equipment				
4		Dismantling of power line				
5		Dismantling of mine structures				
		Sub - Total				
1	<b>Safety and security</b>	Barbed wire fencing around mine (Pit & dumps)				
2		Concrete wall with masonry / concrete pillars around the pit				
3		Securing enteries(shaft/inclines)				
4		Appropriate fencing around the water body & installation of bore well pump				
5		Stabilisation  viz.,benching, pitching et) of side walls of the waterbody				
6		Toe Wall around the dump				
7		Garland drain				
8		Drainage Channel from main OB dump				
		<b>Sub - Total</b>				
1	<b>Technical and Biological reclamation of mined out land and OB dump</b>	Filing of Void				
2		OB Rehandling for backfilling				
		Terracing, blanketing with soil and vegetation of Extremal OB Dump				
3		Peripheral road, gates, view points, Cemented steps on bank				

4		Expenditure on the development of agricultural land							
5		Landscaping & Plantation							
		Stowing							
		Sub - Total							
1	<b>Post closure monitoring and supervision</b>	power cost							
2		post mining water quality management							
3		post mining air quality management							
4		Subsidence monitoring for 5 years							
5		man power cost and supervision							
		Sub - Total							
1	<b>Sustainability</b>	Entrepreneurship development (vocational skill development, training for sustainable income of affected people							
2		One time financial grant to societies/institutions/organisations which is dependant upon the project							
3		Continuation of other services like running of schools etc							
4		Repurposing activities such as agriculture, pisciculture, eco-park, recreational, landscaping, waterbody conservation or creation as per Mission Amrit Sarover,							

		irrigation etc. wherever it is applicable								
		% age of PAP for whom alternate arrangements made for sustained livelihood (Indirect employment/ Created source of income other than direct employment)								
5		% of project affected families given employment (Direct Employment)								
		Organisation of health check up camps								
6		Any Other Steps Taken for Improving the Socio-Economic Standard of Local Communities								
		Sub - Total								
		TOTAL COST								

**Appendix –VII**

Illustration: Yearly and 5 Yearly Reimbursement of escrow amount

<i>Total Project Area (Ha)</i>	500
<i>Mine Closure Cost per Ha</i>	1500000
<i>Total Cost (Cr)</i>	7.5
<i>Cost Per Annum (Cr)</i>	2.5
<i>Interest assumed per annum</i>	7 %

*Amount in Crores*

<b>Year</b>	<b>Deposition</b>	<b>Yearly Reimbursement</b>	<b>Balance with Interest at the end of year</b>	<b>5 yearly release (50 % of Balance after yearly release)</b>
Year 1	2.50	No yearly Reimbursement	2.50	
Year 2	2.63	1.25	4.05	
Year 3	2.76	1.31	5.78	
Year 4	2.89	1.38	7.70	
Year 5	3.04	1.45	9.83	
Year 6	3.19	No yearly Reimbursement	8.45	<b>(50 percent of 9.83 Cr) = 4.91</b>
Year 7	3.35	1.60	10.80	
Year 8	3.52	1.68	13.39	
Year 9	3.69	1.76	16.27	
Year 10	3.88	1.85	19.44	
Year 11	4.07	No yearly Reimbursement	14.47	<b>(50 percent of 19.44 Cr) = 9.72</b>
Year 12	4.28	2.04	17.72	
Year 13	4.49	2.14	21.32	
Year 14	4.71	2.24	25.28	
Year 15	4.95	2.36	29.64	
Year 16	5.20	No yearly Reimbursement	21.05	<b>(50 percent of 29.64 Cr) = 14.82</b>
Year 17	5.46	2.60	25.39	
Year 18	5.73	2.73	30.16	
Year 19	6.02	2.87	35.43	
Year 20	6.32	3.01	41.22	
Year 21	6.63	No yearly Reimbursement	28.68	<b>(50 percent of 41.22 Cr) = 20.61</b>
Year 22	6.96	3.32	34.34	
Year 23	7.31	3.48	40.58	
Year 24	7.68	3.66	47.44	
Year 25	8.06	3.84	54.98	

Year 26	8.47	No yearly Reimbursement	37.88	<b>(50 percent of 54.98 Cr) = 27.49</b>
Year 27	8.89	4.23	45.19	
Year 28	9.33	4.44	53.24	
Year 29	9.80	4.67	62.10	
Year 30	10.29	4.90	<b>71.84</b>	
Total	166.10			

Note:- Calculation is just for illustration purposes.

The calculation of interest is tentative.

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**CERTIFICATE OF QUALIFIED PERSON**

(Sample)

This is to certify that the Project area considered for preparation of the Mining Plan including the Mine Closure Plan of ..... Block/Mine, ..... District, (Name of State) is confined within the existing mining lease area. The geo-referenced Co-ordinates considered for preparation of Mining Plan of .....Block/Mine are within the allotted/vested block boundary.

Authorised Signatory - Qualified Person (QP)/AMPPA

Phone No.:

Email Id:

**BOARD RESOLUTION**

(Sample)

**Extract of the Resolution from the .....th Meeting of Board of Directors of  
.....(Company Name) held at .....(Time) on .....(Date)**

\*\*\*

The Board after deliberation passed the following resolution:

Resolved that the approval of the Board of Directors be and is hereby accorded to accept and approve the Mining Plan and Mine Closure Plan as annexed to the Board Note, with the recommendation for approval by the Ministry of coal.

Resolved further to confirm that the data used for the preparation of the above Mining Plan and Mine Closure Plan is correct and further assure that through the funding in the form of equity from the Promoters & borrowings from Bank(s) Financial Institution(s), the Company would implement the Mining Plan and Mine Closure Plan as per the approval accorded by the Ministry of Coal.

Resolved further to authorize Shri/Smt.....as Qualified Person/AMMPA for preparation of Mining Plan and Mine Closure Plan for .....Block/Mine and ..... (Consultant) for reviewing the same.

Resolved further to authorize Shri..... Director/CEO/any other, to sign the undertakings, affidavits etc., for submission to Ministry of Coal, including the undertakings as mentioned below in terms of the guidelines issued by Ministry of Coal vide communication ref. .... for the preparation of Mining Plan for Coal and Lignite and also such other documents as may be required in this regard:

- a) that the mine will be developed as per the approval of the Mining Plan and Mine Closure Plan by the Ministry of Coal and that all other approvals as may be required will be obtained from the relevant authorities.
- b) the entire mining operation will be carried out as per the Statutory provisions given under the Mines Act, 1952, Coal Mine Regulation, 2017, the Environment (Protection)

Act, 1986, the Forest (Conservation) Act, 1980 and that wherever any specific permission is required, the concerned authorities will be approached for the same.

- c) that the Reclamation & Rehabilitation work shall be carried out in accordance with the approved Mine Closure Plan as amended by Ministry of Coal, from time to time.
- d) that the protective measures contained in the Mine Closure Plan including Reclamation & Rehabilitation works shall be carried out as per the approved Mine Closure Plan including the Final Mine Closure Plan.
- e) to submit a yearly report before 1<sup>st</sup> July of every year to the Coal Controller setting forth the extent of protective and rehabilitative works carried out as envisaged in the approved Progressive & Final Mine Closure Plans and obtain the Mine Closure Certificate to that effect from them and also for surrendering the reclaimed land to the Government of .....(Name of State Govt.)

Resolved further to authorize ..... of the company to effect changes in the Mining Plan and Mine Closure Plan based on the observation of the consultant ..... and Ministry of Coal.