**Fl. No. CPAM-34011/28/2019-CPAM-Part(1) [E-344038]**
**Government of India**
**Ministry of Coal**
**[MPS Section]**
**GPOA-3, Netaji Nagar, New Delhi**
**Dated: 20th November, 2026**

# OFFICE MEMORANDUM

**Subject: Guidelines for preparation of Mining Plan and Mine Closure Plan for Coal and Lignite Mines, 2026.**

The undersigned is directed to forward herewith the"Guidelines for preparation of Mining Plan and Mine Closure Plan for Coal and Lignite Mines, 2026" for further necessary action and compliance.

This has the approval of Competent Authority.

**Encl: As above**

Digitally signed by
ARVIND KUMAR
Date: 20-11-2026
17:31:27

**(Arvind Kumar)**
**Under Secretary to Govt. of India**

**To**

1. **Chairman, Coal India Ltd.**
2. **CMD, SCCL**
3. **CMD, NLCIL**
4. **Coal Controller, Coal Controller Organization, New Delhi**
5. **O/o Nominated Authority- to circulate it to all Coal Companies except stated above**

**Copy to:**

1. **Secretary, Ministry of Environment, Forest & Climate Change**
2. **Secretary (Mines)- All coal/Lignite bearing states**
3. **DG, DGMS**
4. **All Joint Secretaries, Ministry of Coal**
5. **Sr. Technical Director, NIC – with request to place on website of MoC**




# Mining Plan Guidelines

for

# Coal and Lignite Mine

2026

## List of Abbreviations

CBDPA= Coal Block Development and Production Agreement
CCO = Coal Controller Organisation
CGWB = Central Ground Water Board
Crs = Crores =10 million
CMDPA = Coal Mine Development and Production Agreement
CMPDIL = Central Mine Planning and Design Institute Limited
Cum = Cubic metre
DGPS = Differential Global Positioning System
DGMS = Directorate General of Mines Safety
EC = Environment Clearance
FC = Forest Clearance
GCV = Gross Calorific Value
GR = Geological Report
Ha = Hectare
HFL = Highest Flood Level
Km = Kilometre
LBDPA= Lignite Block Development and Production Agreement
LS = Lumpsum
m = Metre
Max = Maximum
Mt = Million Tonne
MTPA = Million Tonne Per Annum
ML = Mining Lease
MoEF&CC = Ministry of Environment, Forest and Climate Change
MCR = Mineral Concession Rules, 1960
$Mm^3$ = Million Cubic Metres
MPPA = Mining Plan Preparing Agency
NABET = National Accreditation Board for Education and Training
NEERI = National Environmental Engineering Research Institute
OC = Opencast
OB = Overburden
PAFs= Project Affected Families
PWD = Public Works Department
PRC= Peak Rated Capacity
QCI = Quality Council of India
QP = Qualified Person
SCCL = Singareni Collieries Company Limited
SR = Stripping Ratio
SWCS= Single Window Clearance System
t = Tonne
UG = Underground
WGS84 = World Geodetic System 1984
WPI = Wholesale Price Index

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## Chapter-I
## Preliminary

**1.1. Short title and commencement. -** (a) These guidelines may be called the "**Guidelines for preparation of Mining Plan and Mine Closure Plan for Coal and Lignite Mines, 2026"**.

(b) These guidelines shall come into force 30 days from date of issue of these guidelines.

Provided that the Mining Plans uploaded on SWCS portal (https://swcs.coal.gov.in) before coming into force of these guidelines shall continue to be governed by the guidelines dated 31.01.2025.

(c) The Mine Closure Plan, inclusive of the Progressive Mine Closure Plan and Final Mine Closure Plan, shall constitute an integral component of the Mining Plan.

(d) "Guidelines for preparation and approval of Mining Plan for Coal and Lignite Blocks/Mines for Underground Gasification 2026" as amended from time to time shall be an integral part of these guidelines.

**1.2. Objectives:** (a) To optimize the extraction of coal and lignite resources that minimize waste generation while maximizing efficiency.

(b) To emphasize the importance of systematic and scientific mining, to promote safety and health, to safeguard the interest of workers and local communities, to promote upgradation of infrastructure and adoption of global best technologies.

(c) To promote responsible mining practices that support both the coal and lignite industry and the broader ecosystem by incorporating restoration, remediation, and regeneration measures into Mining Plans for sustainable management of natural resources.

(d) To prioritize environmental conservation by monitoring soil, groundwater, and vegetation and implementing measures to improve air, soil and water quality.

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

(a) "Abandoned Mine" means a mine or part of it in which the mining operations have been stopped and the owner of the mine has no intention of working in the future.
Provided that such decision has been taken with approval of the Board;

(b) "Allocated Block" shall mean blocks granted, allotted, auctioned or vested by any other means by the Government from time to time;

(c) "Block" shall mean an area containing coal/ lignite, identified by the Central Government as a coal/ lignite block and shall include a coal/ lignite mine;

(d) "Board" shall mean the Governing Authority (Board or committee or by whatever name it is called) for statutory corporations established by or under any Central or State Act or a company registered under the Companies Act, 2013;

(e) "Discontinued Mine" means such mine or part of it in which the mining operations have been stopped, but the owner of the mine intends to operate the same again.
Provided that such decision has been taken with approval of the Board;

(f) "Escrow account" means an account opened by the project proponent in a scheduled commercial bank, facilitating the deposition and withdrawal of funds for mine closure purposes;

(g) "Leased Area" shall have the same meaning as defined in Section 3 (ac) of MMDR, Act, 1957;

(h) "Life of the Mine" means the total development and production years as given in the calendar plan and includes post-mining closure period and post closure monitoring period;

(i) "Mine closure" means the comprehensive process of closing and securing a mine during development and production period, post mining closure period and upon completion of post closure monitoring period;

(j) "Mine Closure Plan" means a document that includes financial provisions and activities to be implemented towards mine closure during development and production period and till final mine closure;

(k) "Minor Changes" shall have the same meaning as prescribed in sub-rule (2) of Rule 22E of the Mineral Concession Rules, 1960 as amended from time to time;

(l) "Post closure monitoring period" means the period of 2 (two) years after completion of the post mining closure period;

(m) "Post mining closure period" means the period of 3 (three) years after cessation of the production activities;

(n) "Production Life of the Mine" means the period of development and production years as given in the calendar plan; and

(o) "Project Area" means the total area for which Mining Plan has been prepared and it includes leased area. The project proponent may also include in the project area, other areas such as office premises, residential areas, Rehabilitation & Resettlement colonies, outside the leased area. For purposes of calculation of amount to be deposited in the escrow account, project area shall exclude areas other than leased area.

**1.4. Requirement and Applicability:**

(a) Every block shall have a Mining Plan approved by the Coal Controller based on which mining operations shall be carried out.
Provided that the Mining Plan of blocks of the Central Public Sector Undertakings, the State Public Sector Undertakings including SCCL and Damodar Valley Corporation may be approved by the Board, if the land has been acquired under Coal Bearing Areas (Acquisition and Development) Act, 1957 or the Coking Coal Mines (Nationalisation) Act, 1972 or the Coal

Mines (Nationalization) Act, 1973, and the Mining Plan has been prepared or vetted by CMPDIL.

Provided further that Mining plans not required to be approved by the Coal Controller, shall be uploaded on SWCS portal within one month of approval by Board.

(b) No block shall operate without an approved Mining Plan.

(c) The approved Mining Plan shall be valid for the life of the mine or 30 years, whichever is earlier.

Provided that the project proponent shall include a conceptual note for 31st year onwards if the production life of the mine is more than 30 years.

(d) These guidelines shall apply to all blocks including sand mining for use of stowing in mines. Mining Plans for sand mining for such use shall be prepared in accordance with the norms prescribed by the respective States.

Provided that in case a State has not formulated such norms, a sample format for submission of application to the Coal Controller is attached at **Appendix-I.** Such filled up sample format shall be construed to be an application for approval of Mining Plan. The process for approval of such Mining Plan shall be as at Chapter-IV of the guidelines.

Provided further that the concerned State Government may nominate an official to the Technical Committee constituted as per clause 4.5 of these guidelines for this purpose.

(e) These guidelines supersede all previous guidelines related to preparation of Mining Plan or Mine Closure plan for blocks.

Provided that Mining Plans or Mine Closure plans approved under provisions of previous guidelines shall be deemed to have been approved under these guidelines.

Provided further that any modification or revision of such approved Mining Plans shall be in accordance with provisions of these guidelines only to the extent relevant to such modification or revision.

Provided also that such modification or revision shall not affect the validity of other provisions of the approved Mining Plan which are not subject to such modification or revision.

(f) A Mining Plan may be formulated having more than one leased areas, or a leased area may have more than one Mining Plans.

## Chapter-II

## Mining Plan (excluding Mine Closure Plan)

**2.1.** The Mining Plan shall be formulated as per approved Geological Report.

**2.2. Components of Mining Plan:**

**2.2.1. General:**

(a) The Mining Plan will take into account the project's location, detail of allotment or allocation, previous approval of the Mining Plan (if any), surface features of the block, brief socio-economic information.

(b) The project proponent shall decide the appropriate mining method (opencast or underground or mixed mining and/or Underground Coal Gasification) and suitable technology to carry out

mining operations so as to achieve optimum extraction of coal or lignite while ensuring safe and sustainable resource management.

Provided that the project proponent may provide an analysis as regards arriving on appropriate mining method.

Provided further that the project proponent shall deploy mining method indicated, if any, at the time of allocation of the block.

(c) The Mining Plan shall contain year-wise Calendar Plan and indicative production of coal or lignite as well as removal of overburden, along with stage plan for 1st year, 5th year, the year of achieving rated capacity of the mine, 10th year and 30th year or the final year (in case production life of the mine is less than 30 years).

(d) A block may increase annual production up to rated capacity ahead of the schedule, irrespective of Calendar Plan.

(e) In case of captive/ commercial blocks, the Calendar Plan may have provision for production either equal to or more than that provided in the CMDPA/ CBDPA/ LBDPA.

Provided that proposed production in the Calendar Plan lower than that of CMDPA/ CBDPA/ LBDPA, shall require prior approval of the Nominated Authority or any other designated official, as the case may be, of the Ministry of Coal.

(f) The Mining Plan shall include an action plan for the unexplored part of the block, if any, and for the systematic assessment and progressive extraction of the remaining resources.

(g) The Project area envisaged in the Mining Plan shall be restricted to the allocated block (or part of it).

Provided that the project area in the proposed Mining Plan may include an area beyond the allocated block.

Provided further that a certificate shall be provided by the Qualified Person (QP) or accredited Mining Plan Preparing Agency (MPPA) that has prepared the Mining Plan, indicating the allocated block (or part of it) and the areas beyond the allocated block.

Provided also that a No Objection Certificate in format at **Appendix-II** shall be obtained from the State Government before obtaining mine opening permission.

(h) If any part of a captive/ commercial block area cannot be included in the Mining Plan due to constraints such as presence of dense forest (in terms of the Forest Survey of India), rivers, railway lines and other areas that require special permission, such area may be excluded from the Mining Plan.

Provided that in cases where a block includes areas, which are fully explored and part of the block is partially explored or unexplored, the project proponent may exclude that part of the block from the Mining Plan which is not fully explored.

Provided further that in case constraints are removed or exploration has been completed in areas which were not fully explored, as the case may be, a revised Mining Plan may be submitted for approval.

Provided also that non-coal bearing area or non-lignite bearing area may be excluded from the Mining Plan.

Provided also that consequences on account of CMDPA/ CBDPA/ LBDPA or compliance with any other requirement/ condition, of exclusion of such area from the Mining Plan shall be borne by the project proponent. Any such consequence shall be calculated from the level of production from the mine as envisaged in the original CMDPA/ CBDPA/ LBDPA rather than any subsequent modification to the CMDPA/ CBDPA/ LBDPA.

(i) When an area proposed to be excluded as per sub-clause (h) is more than 10%, the project proponent shall seek comments of CMPDIL intimating reasons for such exclusion and include its comment while submitting the Mining Plan application. CMPDIL shall give its comments within 15 days of submission of such request by the project proponent.

**2.2.2. Safety**

The project proponent shall ensure that due consideration is paid to safety aspects in the Mining Plan.

**2.2.3. Mechanization:**

(a) All mines having peak rated capacity of 2 MTPA or more shall include in the Mining Plan, the provision for evacuation of coal/lignite through means of transport other than road. The same shall be implemented within 5 years of commencement of production, as far as practicable.

(b) All mines shall ensure that the loading infrastructure is mechanized.

(c) The project proponent shall deploy blast-free mining method in extraction of coal/ lignite.

Provided that drilling and blasting may be deployed when blast-free technology is not technically feasible or is commercially unviable.

Provided further that in case blast-free mining method is not deployed, the project proponent shall provide justification for the same.

**2.3.** The format for formulation of the Mining Plan is at **Appendix-III.**

## Chapter-III

## Mine Closure Plans

**3.1.** Mine Closure Plan aims to ensure scientific mine closure and placing emphasis on rehabilitation of mining sites, minimising environmental degradation, safeguarding public health, and promoting sustainable development by restoring the land to a condition suitable for future use or returning it to its near-original state or better, while also holding project proponents accountable for their closure obligations.

It also aims to transition towards more sustainable and environment friendly eco-system that puts people and communities at the centre, while mitigating environmental impacts, protecting livelihoods, supporting affected workers and communities, and creating a new economic future.

**3.2.** Mine closure and repurposing include activities such as replanting native or suitable vegetation, restoring water bodies, rehabilitating wildlife habitats and activities related to agriculture, horticulture, pisciculture, developing eco-park, landscaping, waterbody conservation or creation, mine water utilization for irrigation and domestic water use, setting up solar plants.

**3.3.** Backfilling of mine void may form part of mine closure activity only where it is carried out specifically for the purpose of mine closure and not as part of regular mining operation.

**3.4.** A minimum of 25% of amount claimed for reimbursement during sixth year, eleventh year, sixteenth year and so on in terms of clause 3.14 (iv) shall be for community development and livelihood-related activities.

An indicative list of activities is given in **Appendix-IV**.

**3.5.** Mine Closure Plan shall comprise of (a) Progressive Mine Closure Plan, updated every five years, and (b) Final Mine Closure Plan.

Provided that five years before cessation of mining operations, the project proponent shall submit a revised Final Mine Closure Plan that shall include operational history of the mine, scientific findings, maps/drawings, monitoring data and expenditure from the escrow account.

Provided further that while submitting the revised Final Mine Closure Plan, the project proponent shall submit details of the updated cost estimate for various mine closure activities and balance amount in the escrow account.

**3.6.** The Action plan for carrying out all mine closure operations (progressive mine closure as well as final mine closure) should be furnished in the format specified in **Appendix-V.**

**3.7.** The Final Mine Closure Plan starts towards end of mine life and covers restoring land to its near-original state, repurposing and community development. It includes securing mine from safety point of view, dismantling and demolition of structures, removal of machinery, plantation, landscaping, specified post-environmental monitoring, protective and restoration measures, and related activities.

**3.8.** Final Mine Closure Plan shall contain a completion report containing operational history, past investigation/study/scientific findings and further action taken, if any; mine working maps, images 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.

**3.9.** The Final Mine Closure shall end with post closure monitoring period.

**3.10. Surrender or partial closure of mine:**

(a) Any mine or part of it that is an abandoned mine or a discontinued mine shall constitute "partial closure".

(b) Partial closure shall be applicable for mines other than Captive/ Commercial blocks.

(c) While approving surrender of a Captive/ Commercial block, the Nominated Authority or the designated official of the Ministry of Coal, as the case may be, shall impose appropriate conditions in the approval order so that provisions of this clause are complied.

(d) The project proponent shall intimate CMPDIL about approval of surrender or partial closure.

(e) CMPDIL shall, within a period of 45 days from receiving intimation of approval of such surrender or partial closure, prepare and approve a Temporary Mine Closure Plan.

(f) The Temporary Mine Closure Plan is limited to securing the exposed and mined area from safety point of view taking into account the approved Mine closure plan.

(g) The project proponent shall carry out activities mentioned in the Temporary Mine Closure Plan prepared by CMPDIL.

(h) The cost of preparation of Temporary Mine Closure Plan as well as carrying out activities mentioned in such plan shall be borne by project proponent. For this purpose, the project proponent shall not be allowed to utilize the amount available in the escrow account.

(i) In case of captive/ commercial mines, the project proponent shall be the custodian of the mine until it is reopened or for a period of five (5) years from the date of approval of surrender, whichever is earlier.

(j) If the surrendered mine is not allocated within five (5) years, final mine closure activities shall be undertaken by an agency to be designated by Ministry of Coal on recommendation of CMPDIL. For this purpose, the agency so designated shall utilize the amount available in the escrow account.

(k) In case of surrender or partial closure, the project proponent shall not be required to deposit amount in the escrow account, from the financial year subsequent to financial year of implementation of activities mentioned in Temporary Mine Closure Plan.

**3.11. Other provisions related to Mine Closure:**

**3.11.1.** A zone of impact should be identified, preferably through Social Impact Assessment (SIA) or other socio-economic surveys, in the project area and buffer zone (of around 10 km from project boundary) for identification of livelihood generation activities.

**3.11.2.** Project proponent shall engage local communities and self-help groups through structured consultations and collaborative decision-making to incorporate their perspectives and develop sustainable solutions.

**3.11.3.** After the closure of mining operations, social amenities and infrastructure created like hospitals, schools, community centers, office and other buildings, should be handed over to the Government or local authorities in consultation with district collector, if such infrastructure is not required for the same or nearby projects.

**3.12. Mine Closure Cost:** The project proponent shall deposit amount in the escrow account towards mine closure cost as per calculation indicated at clause 3.13. The project proponent shall indicate breakup of cost towards individual activities (**Appendix-V**) of progressive mine closure as well as final mine closure.

**3.13. Escrow Account:**

(a) The project proponent shall, before starting mining operations, open an escrow account in a scheduled commercial bank that shall be followed by a tripartite agreement involving CCO. The project proponent shall deposit annual contribution towards mine closure in this escrow account.

(b) The annual rate for deposition in the escrow account is ₹ 14,00,000 (Fourteen Lakhs) per hectare for opencast mines and ₹ 2,00,000 (Two Lakhs) per hectare for underground mines. These rates shall be the Base Rate as of May 2024 to be escalated on the latest available Wholesale Price Index (WPI) on the date of signing of escrow agreement.

Provided that the annual rate for deposition may be revised by the Ministry of Coal.

(c) The amount for the first year and subsequent years shall be deposited in the escrow account as per the following illustration.

Once amount for the first year has been calculated, the same shall be escalated @5% annually.

Illustration (for opencast mines):

| | |
|---|---|
| *Project Area (Ha)* | *535.72* |
| *Mine Closure Cost per Ha (Rs) (May 2024) (for Opencast mines)* | *14,00,000* |
| *WPI as on May 2024 (assumed)* | *100* |
| *Latest WPI available as on date of signing of escrow agreement (assumed)* | *110* |
| *Production Life of Mine* | *30* |
| *Amount to be deposited in the first year (Cr)* | *(110/100*535.72*14,00,000)/30=2.75* |
| *Amount to be deposited in the second year (Cr)* | *2.75*1.05=2.89* |
| *Amount to be deposited in the third year (Cr)* | *2.75*1.05*1.05=3.03* |

(d) The project proponent shall deposit the annual amount for first year at the time of opening the escrow account while for second year onwards by 31st March of that financial year.

Provided that an interest @ 1 percent/month shall be charged for the delay in deposition of the amount for every delayed month or a part of it.

Provided further that if project proponent fails to deposit the amount within 31st December of the subsequent financial year, the Coal Controller shall suspend Mining Plan and communicate the same to Ministry of Coal, DGMS, MoEF&CC and the respective State Government.

Provided also that once the dues are paid, the suspension order shall be revoked and mining operations may restart.

Provided also that upon lapse of six months from the date of issue of the suspension order, if project proponent fails to clear the dues, the Central Government may, on recommendation of the Coal Controller, withdraw approval of the Mining Plan.

(e) For mines already in operation as on 01.04.2026:

i. The project proponent shall deposit amount (including interest, if any, for the delayed period) that remained pending for deposition till 31.03.2026 under the then existing escrow agreement.

ii. With effect from 01.04.2026, the amount to be paid will be as per the following illustration.

Illustration:

| | |
|---|---|
| *Project Area (Ha)* | *535.72* |
| *Mine Closure Cost per Ha (Rs) (May 2024) (for Opencast mines)* | *14,00,000* |
| *WPI as on May 2024 (assumed)* | *100* |
| *Latest WPI available as on 01.04.2026 (assumed)* | *110* |
| *Production Life of Mine* | *30* |
| *Balance Production Life of Mine as on 31.03.2026 (FY 2016-17 – Starting of Mining Operation)* | *20* |

| | |
|---|---|
| *Amount to be deposited for FY 2026-27 (Cr) – 11th Year* | *(110/100*535.72*14,00,000)/30=2.75* |
| *Amount to be deposited for FY 2027-28 (Cr) – 12th Year* | *2.75*1.05=2.89* |
| *Amount to be deposited for FY 2028-29 (Cr) – 13th Year* | *2.75*1.05*1.05=3.03* |

iii. The annual amount to be deposited in the escrow account shall be for the balance life of the mine. For example, a mine having started its operation in FY 2016-17 (i.e. in the FY 2025-26, the mine has completed 10 years of operation) with production life of the mine as 30 years, shall deposit the amount for the balance production life of the mine (i.e. 30-10=20 years) starting from 01.04.2026.

(f) All escrow agreements already signed as on date of coming into force of these guidelines shall be deemed to have been signed in terms of sub-clause (a).

(g) Expenditure towards activities mentioned in the approved Mine Closure Plan shall be met from the escrow account.

Provided that mines for which Mine Closure Plan has been approved before coming into force of these guidelines, but for which the mine closure certificate has not been issued by the Coal Controller, shall meet any expenditure over and above that available in the escrow account, through its own resources.

(h) Notwithstanding anything contained in the escrow agreement, the annual contribution, reimbursement and all matters in respect of escrow account shall be governed in terms of provisions of this clause and the existing escrow agreement shall be deemed to have been modified to that extent.

**3.14. Reimbursement from Escrow Account:**

(i) Claim for reimbursement from escrow account for work done towards mine closure shall be made by 31st March of the year subsequent to the financial year in which activities have been undertaken.

Such claim may be made by the project proponent up to 50% of the deposited amount in the previous year (excluding interest accrued) based on work done towards mine closure.

Such claim shall be based on self-certification by authorized official of the company.

(ii) While submitting the claim, videos and georeferenced images of the work done shall be submitted to the office of the Coal Controller for records.

(iii) The Coal Controller shall, within one month of receipt of claim from the project proponent, allow withdrawal of amount.

Provided that the Coal Controller may test-check up to 5% of the claims received.

Explanation: The number of claims to be test-checked may be derived on the basis of claims received in the previous financial year.

(iv) Every sixth year, eleventh year, sixteenth year and so on, reimbursement from the escrow account may be made to the project proponent up to 50% of the total accumulated amount (including interest accrued) based on work done towards mine closure.

Such claim for reimbursement from escrow account for work done towards mine closure shall be made by 31st March of the financial year.

Provided further that in such years, no annual reimbursement in terms of sub clause (i) of this clause will be applicable.

(v) Before submission of claim for withdrawal from the escrow account in terms of sub clause (iv) of this clause, the project proponent shall get the same verified through one of the following agencies:

a. Central Mine Planning and Design Institute (CMPDIL)
b. Indian Institute of Technology(ies) or National Institute of Technology(ies) or Engineering colleges controlled by Central/State Government offering graduate/post-graduate degrees in mining or environmental science
c. National Environmental Engineering Research Institute (NEERI)
d. Any other agency authorized by the Central Government from time to time.

(vi) These agencies shall also scrutinize the claim of the project proponent by comparing with Mining Plan.

(vii) After submission of claim by the authorized official of the project proponent in terms of sub-clause (iv), the steps enumerated at sub clauses (ii) & (iii) shall be followed.

(viii) All activities related to submission, scrutiny, verification and disbursal of claims shall be done through a dedicated portal developed by the Coal Controller.

(ix) Coal Controller shall issue the mine closure certificate after the post-closure monitoring period based upon undertaking by the project proponent and third-party audit report (appointed by the project proponent from a list of agencies as indicated at sub-clause (v)) within a period of 30 days of receipt of such report.

Provided that the third-party auditor shall verify that the activities mentioned in the Final Mine Closure Plan have been completed.

Provided further that the third-party auditor shall verify that a minimum of ten percent of amount available in the escrow account at the time of cessation of mining operations, has been spent towards generating alternate economic resources etc.

Provided also that balance amount available in the escrow account shall be reimbursed to the project proponent on issue of mine closure certificate.

(x) If the Coal Controller has reasonable grounds, based upon activities undertaken by the Project Proponent in previous two years, for believing that the activities envisaged in the approved Mine Closure plan are not being carried out, the Coal Controller shall give the project proponent a written notice of intention to forfeit the amount in the escrow account.
Provided that the decision on forfeiture shall be made only with the approval of the Central Government.
Provided further that while submitting proposal for such forfeiture, the Coal Controller shall indicate the modalities of carrying out the activities envisaged in the approved Mine Closure Plan using such forfeited amount.

(xi) The project proponent may re-appropriate funds amongst approved mine closure activities with prior approval of the Board.

## Chapter-IV

## Formulation, submission, scrutiny, approval, revision, and timelines

**4.1.** Project proponent shall ensure that the Mining Plan has been prepared by the Qualified Person/ Accredited Mining Plan Preparing Agency recognised under section 22B of the Mineral Concessions Rules, 1960, as amended from time to time.

**4.2.** Every Mining Plan submitted for approval or revision shall be accompanied by a non-refundable application fee of ₹ 1,00,000 (One Lakh Rupees), which may be revised by the Central Government from time to time.

**4.3.** Vide notification no. CG-DL-E-01062020-219668 dated 29th May 2020 of the Ministry of Coal, the Coal Controller has been authorised to approve 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).

**4.4.** For carrying out its functions as required under clause 4.3, the Coal Controller shall be assisted by a Technical Committee that shall scrutinise and examine the Mining Plan submitted by the project proponent. After the scrutiny and examination, the committee shall recommend the Mining Plan to the Coal Controller for "Approval" or "Rejection".

**4.5.** The Technical Committee shall consist of:

a) Deputy Coal Controller - Member Secretary (In case of vacancy, the Coal Controller may designate a suitable officer)
b) Director (Technical), MPS, Ministry of Coal- Member
c) One officer nominated by Coal Controller. No officer shall serve as member of the committee for more than a year- Member
d) An officer not below the rank of General Manager from CMPDIL (nominated by CMD, CMPDIL) in case Mining Plan is not prepared by CMPDIL. No officer shall serve as member of the committee for more than a year- Member
e) An official of the concerned State Government - in case of a proposal relating to sand mining for stowing

**4.6.** The members of the Technical Committee shall scrutinise the Mining Plan and submit comments thereof within fifteen (15) days of submission of the Mining Plan on the portal. Non-submission of comments by a member within such period shall imply that the member has no comments to offer.

**4.7.** On receipt of the comments, the project proponent may consider incorporating the same in the Mining Plan and shall resubmit the modified Mining Plan, within a period of 30 days of expiry of the period mentioned in clause 4.6.

Provided that in case the modified Mining Plan, considering the suggestions of members of the Technical Committee, is not resubmitted within such period, the Technical Committee may recommend rejection of the application.

Provided further that an opportunity of being heard shall be given to project proponent before rejecting application for approval of Mining Plan.

**4.8.** After the modified Mining Plan has been submitted, a meeting of the Technical Committee shall be convened within 15 days of submission under clause 4.7, wherein the project proponent shall make a presentation before the Technical Committee.

**4.9.** Technical Committee shall circulate the approved minutes within 7 days of the meeting under clause 4.8.

**4.10.** The project proponent shall incorporate decisions communicated as per minutes of the meeting of Technical Committee and resubmit the Mining Plan within 15 days of issue of minutes of the meeting.

**4.11.** After final submission of the Mining Plan, a virtual/physical meeting of the Technical Committee may be convened to recommend the approval or rejection of the Mining Plan, taking into consideration the recommendations contained in minutes of the meeting.

**4.12.** In case of recommendation for rejection, the Technical Committee shall accord the project proponent an opportunity of being heard before its recommendation. The Technical Committee shall record reasons for the rejection.

**4.13.** After the Technical Committee recommends approval/rejection of the Mining Plan, the Coal Controller shall communicate its decision within 5 days of such recommendation.

**4.14. Circulation of Approved Mining Plan:** CCO shall circulate a soft copy (through means such as Email or Work Drive) of the approved Mining Plan along with the approval letter to the Ministry of Environment, Forest and Climate Change, DGMS, CGWB, State Directorate of Geology and Mining department and District Administration**.**

**4.15.** Any person aggrieved by any orders made or directions issued in respect of the Mining Plan by the Coal Controller may apply to the Secretary, Ministry of Coal, for revision of such order made or directions issued thereon.

Provided that such application shall be made within a period of 30 (thirty) days of such order made or such direction issued.

## Chapter-V

## Miscellaneous

**5.1. Modification or Revision of the Mining Plan:**

(a) Modifications (minor changes) can be done with the approval of the Board.

Provided that any such modifications shall be communicated to the Coal Controller within 30 days of such approval.

(b) Revisions (other than minor changes), based on the application in this regard by the project proponent, shall be done only after approval of the Coal Controller.

Provided that no revisions shall be approved by the Coal Controller without prior approval of the Nominated Authority or any other designated official, as the case may be, of the Ministry of Coal, if such revisions result in deviations from the terms & conditions or efficiency parameters mentioned in CMDPA/CBDPA/LBDPA.

Provided further that revision in the Mining Plan of blocks of the Central Public Sector Undertakings, the State Public Sector Undertakings including SCCL and Damodar Valley Corporation may be approved by the Board, if the land has been acquired under Coal Bearing Areas (Acquisition and Development) Act, 1957 or the Coking Coal Mines (Nationalisation) Act, 1972 or the Coal Mines (Nationalization) Act, 1973, and the Mining Plan has been prepared or vetted by CMPDIL.

Provided also that revision of Mining Plans, which are not required to be approved by the Coal Controller, shall be communicated to the Coal Controller within 30 days of such approval.

(c) Notwithstanding anything contained in clauses 5.1 (a) and 5.1 (b), the Coal Controller may modify or revise Mining Plan based on directions issued by the Central Government.

(d) Upon approval of revision(s) or modification(s) of the Mining Plan by the competent authority, the revised or modified Mining Plan, as the case may be, shall be valid from the date of approval.

**5.2.** A detailed report shall be submitted by the project proponent with respect to compliance with the Mining Plan, including deviations, if any, every five years to the Coal Controller.

**5.3.** In cases involving at least one captive/ commercial mine, through a joint application of project proponents of adjoining mines, a proposal for approval of Mining Plan for extraction of barrier coal may be submitted to the Coal Controller.

Provided that the Board may approve such Mining Plan in cases not involving captive/ commercial mines.

**5.4.** Through mutual agreement, one mine may utilize void/ land of some other mine for purpose of handling overburden, subject to requisite approvals/clearances.

**5.5.** **Mine Repurposing Monitoring Committee:** A Mine Repurposing **Monitoring** Committee will be set-up in every district where mining operations are carried out in order to oversee implementation of community development and livelihood plan. The Committee shall consist of:

a) District Collector, or District officer (as authorised by D.C.) - Chairperson
b) Sarpanch/Secretary of Local Gram panchayat – Member
c) Representative of reputed NGO (in consultation with D.C.) – Member
d) Nodal Officer (Mine Closure) of concerned coal mining company – Member
e) Agent of the mine – Member
f) Chairperson may nominate two other members, one of which shall be a forest official.

**Roles of Committee:**

a) Facilitating periodical meetings and open forums to collaboratively envision and co-create sustainable ideas, consultations, and collaborative decision making.
b) Promoting initiatives that build local knowledge, skills, and resources, such as training programs or alternative livelihood projects, to help the community transition successfully post-mining.

c) Ensuring engagement of local communities and self-help groups in Operation & Maintenance of the project and public spaces.
d) Ensuring greening of project area through best suited species of plantation and sustainable tourism practices by promoting Geo-Tourism.
e) Proactive participation of local community in the domain of selecting skills to be developed to generate alternate economic resources.
f) Promote transparency and accountability in community-driven initiatives.

Provided that, the Mine Closure Advisory Committee constituted under Clause 4.12 of "Guidelines for preparation of Mining Plan and Mine Closure Plan for Coal and Lignite Mines, 2025" shall be deemed to be Mine Repurposing Monitoring Committee constituted under this clause.

**5.6.** Though not mandatory, the project proponent may incorporate the following in the Mining Plan:

(a) Make in India: Place a strong emphasis on sourcing indigenous machinery or equipment featuring locally manufactured components.
(b) Green Energy and Emission Reduction: Actively strive to meet emission reduction in annual greenhouse gas emissions through renewable sources.
(c) Clean Mobility in Mining Operations: Actively promote deployment of electric vehicles (EVs) and gas-based vehicles within coal mine operations.
(d) Automation: Look toward the future of mining by exploring and integrating autonomous Heavy Earth Moving Machinery (HEMM) within their sites.
(e) Use of blast-free mining technologies (such as longwall/continuous miner) in underground mines.

**5.7.** **Removal of difficulties:** Interpretation of the Ministry of Coal as regards provisions of these guidelines shall be final and binding.

**5.8.** In the interest of the development of the blocks, the Ministry of Coal may relax or modify any of the provisions of these guidelines.

**5.9.** In the event of any inconsistency between the provisions of these guidelines and the Appendices annexed hereto, the provisions of these guidelines shall prevail and shall be binding to the extent of such inconsistency.

**5.10.** These guidelines are without any prejudice to any other relevant rules and regulations issued by concerned Government authorities.

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**Appendix-I**

## SAMPLE FORMAT FOR PREPARATION OF MINING PLANS FOR SAND MINING FOR USE OF STOWING IN MINES

### A. Cover Page

The Cover page should contain the following information:

I. Name of the Mining Plan and Mine Closure Plan
II. Mineral Type: Sand for Stowing
III. Planned Production
IV. Block area/Project area/Proposed area
V. Name of Village, District and State

### B. Contents


| S. No. | Subject | Page No. |
|---|---|---|
| 1 | Index | |
| 2 | Abbreviations | |
| 3 | Index for Main Text | |
| 4 | List of Annexures | |
| 5 | List of Plates | |
| 6 | Check List | |
| 7 | Summarized Data | |
| 8 | Text | |


### C. Abbreviations Used

### D. MAIN TEXT IN TABULAR FORM

### Chapter 1: Introduction

(Objective, Project Details, location, & location map, Positive Impact of Cleaning the river bed by lifting the sand in the coal mining area, Historical Background of Sand Mining Lease, Status of Statutory Clearances, Name of applicant, Status of Applicant, Mineral which is occurring in the area and which is to be mined, Period for which the Mining lease is granted, Name of QP/MPPA preparing the Mining plan, Infrastructure, Location and approach, Name of prospecting agency, Date of grant of Lease from the State Government)

### Chapter 2: Geology and Exploration

(Geomorphological Study, General Profile of Last 50 Years, Annual Deposition Factor, Replenishment, Geological Reserve and Grade, Mineable Reserve, Anticipated Life of Mine)

**Chapter 3: Mining**

(Year wise development plan, Year wise Production, Proposed Rate of Production when mine is fully developed, Mineable reserve and anticipated life of mine, Proposed mining method, Dry Pit Channel Mining as per MoEF&CC Guidelines, Security, Post Mining Reclamation and Land Use Pattern.

**Chapter 4: Blasting**

**Chapter 5: Mine Drainage**

**Chapter 6: Stacking of Mineral Rejects and Disposal of waste**

**Chapter 7: Use of Mineral**

**Chapter 8: Others**

**Chapter 9: Mineral Processing**

**Chapter 10: Progressive Mine Closure Plan**

Statutory Obligation, Closure Plan Preparation, Mined out land, Water Quality Management, Air Quality Management, Waste Management, Top Soil Management, Tailing Dam Management, Infrastructure, Disposal of Mining Machinery, Safety and Security, Disaster Management and Risk Assessment.

**E. LIST OF ANNEXURES**

a. Copy of allotment order Vesting order.
b. Certificate that the project boundary considered for the Mining plan is in coherence with the block boundary vested with the allottee.
c. Approvals of Mine Closure Plan from the Board.
d. Copy of earlier approval of Mining Plan.
e. Replenishment Study

**F. LIST OF PLATES**

a. Key Plan/Location Plan
b. Lease Plan
c. Surface Plan
d. Working Plan
e. Closure Plan
f. Geo Referenced Cadastral Plan
g. River Cross section Plan
h. KML Plan

**Appendix- II**

**GOVERNMENT OF [NAME OF STATE]**

**DEPARTMENT OF MINES & GEOLOGY / INDUSTRIES & COMMERCE**

**Letter No:** _____

**Date:** [DD/MM/YYYY]

**NO OBJECTION CERTIFICATE (NOC)**

**[Issued under Clause 2.2.1 (g) of the "Guidelines for preparation of Mining Plan and Mine Closure Plan for Coal and Lignite Mines, 2026"]**

WHEREAS, the Ministry of Coal, Government of India, has issued "Guidelines for preparation of Mining Plan and Mine Closure Plan for Coal and Lignite Mines, 2026". Under Clause 2.2.1 (g) of the said guidelines, a No Objection Certificate (NOC) from the concerned State Government is required for utilizing land outside the allocated block for project-related purposes.

AND WHEREAS, the Project Proponent has submitted an application requesting the issuance of an NOC for the area specified hereinunder.

NOW THEREFORE, based on the verification of records, and certificates submitted, the State Government of [Name of State] hereby provides the specific details and conditional clearance as follows:

| S. No. | Parameter / Particulars | Details |
|---|---|---|
| 1. | Name of the Coal / Lignite Block | |
| 2. | Name of the Project Proponent | |
| 3. | Date of Allocation of the Block | |
| 4. | Area Outside the Block (in Hectares) | *(The precise boundary and Cardinal Point Coordinates of this external area)* |
| 5. | Certificate of Non-Coal Bearing / Non-Mineability | Verified and confirmed as per the certificate of CMPDIL |
| 6. | Purpose for Which the Land is Proposed to be Used | |
| 7. | Remarks (if any) | |

In view of the above, No Objection Certificate in terms of Clause 2.2.1. (g) of the "Guidelines for preparation of Mining Plan and Mine Closure Plan for Coal and Lignite Mines, 2026" is hereby being granted for the land area specified in S. No. 4.

**Terms and Conditions:**

1. This NOC is strictly valid only for the area and purpose specified above. Any change in land-use pattern or layout plan requires prior amendment/approval from this Department.
2. The Project Proponent shall ensure compliance with all environmental clearances, forest clearances (if applicable), and local laws.

3. This NOC does not exempt the proponent from paying applicable land revenue, taxes, or surface rent as prescribed by the State Government rules.

**Authorized Signatory,**

*(With Name, Designation, and Official Seal)*

Department of Mines & Geology / Competent Authority

Government of [Name of State]

**Appendix- III**

## 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 Revision No." i.e. First Revision, Second Revision 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

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

| ***Sl. No.*** | ***Chapters*** | ***Page No.*** |
|---|---|---|
| 1 | Checklist | |
| 2 | Project Information | |
| 3 | Exploration, Geology, Seam Sequence, Coal Quality and Reserve | |
| 4 | Mining | |
| 5 | Safety | |
| 6 | Infrastructure Facilities | |
| 7 | Land Requirement | |
| 8 | Environment Management | |
| 9 | Progressive and Final Mine Closure Plan | |

### C. List of Annexure

### D. List of Plans/ Drawings Attached enclosed as Plates

### E. List of Abbreviations used.

## CHECKLIST

| ***Details*** | | (✓/✗) |
|---|---|---|
| **Text** | Project Information | |

| | | |
|---|---|---|
| **Text** | Exploration, Geology, Seam Sequence, Coal Quality and Resource | |
| **Text** | Mining | |
| **Text** | Safety | |
| **Text** | Infrastructure Facilities | |
| **Text** | Land Requirement | |
| **Text** | Environment Management | |
| **Text** | Progressive and Final Mine Closure Plan | |
| **Annexure-I** | Copy of allotment letter or ownership record | |
| **Annexure-II** | Copy of approval of the Board towards submission of Mining Plan. | |
| **Annexure-III** | Copy of certificate as regards preparation of Mining Plan by QP/MPPA along with certificate issued for accreditation by QCI-NABET. | |
| **Annexure-IV** | Copy of approval of Geological Report. | |
| **Annexure-V** | Certificate of QP/MPPA to the effect that the Mining Plan is in terms second proviso of clause 2.2.1 (g) of these guidelines. | |
| **Annexure-VI** | Copy of analysis as regards deciding on appropriate mining method. | |
| **Annexure-VII** | Justification for not choosing blast-free technology | |
| **Annexure-VIII** | Action plan for carrying out all mine closure operations (progressive mine closure as well as final mine closure) as per Appendix-V | |
| | Provision of projected amount to be deposited in the escrow account on basis of latest available WPI | |
| | Other documents (if any) | |

| ***Details*** | | (✓/✗) |
|---|---|---|
| **Plates** | Location plan | |
| **Plates** | A combined plan showing the required ML, Block Boundary, and Project Boundary. Certification on the conceptual plan must show all three. | |
| **Plates** | Plan showing the Block Boundary proposed as per DGPS coordinates given and certified by CMPDIL. QP/MPPA shall also certify the same.<br>(i) QP/MPPA shall certify as per clause 2.2.1 (g)<br>(ii) where the project area extends beyond the block boundary, a Plan certified by a Qualified person/ Accredited Mining Plan preparing agency (MPPA). Provided that a No Objection Certificate in format at **Appendix-II** shall be obtained from the State Government before obtaining mine opening permission.<br>(iii) Plan showing, if any part of a captive/ commercial block area cannot be included in the Mining Plan due to constraints such as presence of dense forest (in terms of the Forest Survey of India), rivers, railway lines, non-coal bearing/ non-lignite bearing area and other | |

| *Details* | | (✓/✗) |
|---|---|---|
| | areas that require special permission, excluded from the Mining Plan as per clause 2.2.1(h) of these guidelines. | |
| **Plates** | A printed copy of the KML file superimposed on the recent (not older than one year) satellite Image duly certified by an Accredited Agency should also be attached.<br>Note: The soft copy of the KML file shall also be part of the Mining Plan. | |
| **Plates** | Cadastral plan showing approved block boundary vis-a-vis proposed/existing mining lease and Mine boundary superimposed over it in distinct colour, showing land use and infrastructure etc. | |
| **Plates** | Geological plan showing all the boreholes drilled and proposed to be drilled showing allocated block boundary and leased area | |
| **Plates** | Representative Graphic Litholog | |
| **Plates** | Surface Plan showing drainage system, Contour, preferably at 3m interval, location of BH (borehole) | |
| **Plates** | 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. | |
| **Plates** | Tentative land use plan showing land type (Govt., forest and tenancy land) with its data source | |
| **Plates** | Floor contour plan(s) and seam folio plan(s), iso-grade plan(s) | |
| **Plates** | Cross-section showing coal/lignite seam(s) | |
| **Plates** | Plan showing existing and proposed surface layout(s) | |
| **Plates** | Plan showing total coal thickness and overburden thickness and stripping ratio (in case of opencast (OC) Mines) | |
| **Plates** | Final stage quarry plan showing haul road alignment (in case of OC Mines) | |
| **Plates** | Plan showing mode and location of entries and surface layouts (in case of underground (UG) Mines) | |
| **Plates** | Layout of the panel for each system (like Longwall, Continuous Miner, Bord and Pillar, road header etc.) should be given (in case of UG Mines) | |
| **Plates** | Layout of pillar extraction (in case of UG Mines) | |
| **Plates** | Post-mining land use plan | |
| **Plates** | Progressive Mine Closure Plan/ stage plans | |
| **Plates** | Stage Plan as per clause 2.2.1 (c) of these guidelines. | |

| *Details* | | (✓/✗) |
|---|---|---|
| **Plates** | Reclamation plan for which detailed planning has been done | |

## Chapter 1: PROJECT INFORMATION

| | Parameters | Details |
|---|---|---|
| **1.1** | **INTRODUCTION** | |
| 1.1.1 | Name of Coal / Lignite mine or block | |
| 1.1.2 | Name of Coalfield/ Lignite field | |
| 1.1.3 | 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 | Prominent physiographic features, drainage pattern, natural water courses, rainfall data, highest flood level | |
| 1.2.4 | 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 | **Regd. Office** | **Principal Place of Business** | |
| 1.3.4 | Name of the Previous Allottee of the Block | | | |
| 1.3.5 | Date of Mine Opening permission | | | |
| 1.3.6 | Rated Capacity as per Coal Mines Development & Production Agreement | | | |
| 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 | ID | Latitude | Longitude |
| | | 1 | | |

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

| | | |
|---|---|---|
| 1.4.1 | Whether any Mining Plan has been previously approved | |
| 1.4.2 | Approval Reference, with Date | |
| 1.4.3 | Conditions, if any, and compliance | **Sl. No.** / **Conditions** / **Compliance**<br>1. |
| 1.4.4 | Scheduled year of start of production | |
| 1.4.5 | Proposed year of achieving the targeted production | |
| 1.4.6 | Date of actual commencement of mining operations, if operations already started | |
| 1.4.7 | Likely date of mining operations, if operations not yet started and reasons for non-commencement of operations | |
| 1.4.8 | Planned production and actual levels achieved in last 3 (financial year) years (Coal in Mt, OB in $Mm^3$, SR in $M^3/t$) and in current year | **Year** / **Coal "Mt"** (**UG**, **OC**) / **OB "MM 3"** |
| 1.4.9 | 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 | Block Area in "Ha" | | |
| 1.5.2 | Block Area Projectised "Ha" | | |
| 1.5.3 | Proposed Mining Lease area "Ha"<br>(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 | Mineable Reserve "Mt" | | |
| 1.5.15 | Extractable Reserve "Mt" | | |

| | Parameters | Approved Mining Plan | Proposed Mining Plan |
|---|---|---|---|
| 1.5.16 | % of Extraction/ recovery | | |
| 1.5.17 | Production till date (date of assessment of balance reserve) "Mt" | | |
| 1.5.18 | Balance Extractable Reserve "Mt" | | |
| 1.5.19 | Average Grade | | |
| 1.5.20 | OB in $Mm^3$ | | |
| 1.5.21 | SR $Mm^3/t$ | | |
| 1.5.22 | Mining Technology | | |
| 1.5.23 | 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 | | |
| | **Total** | | |
| 1.5.24 | **Reasons for revision** | | |

## 1.6.: SUSTAINABILITY (Indicative)

| | Parameters | |
|---|---|---|
| 1.6.1 | Tentative No. of PAFs | |
| 1.6.2 | No. of Skilled/Semi Skilled /Unskilled persons profession wise, gender wise, age wise and location wise | |
| 1.6.3 | No. of persons in Vulnerable Groups (Women, Children, Handicap etc.) | |
| 1.6.4 | Repurposing of land proposed | |
| 1.6.5 | Tentative measures to curtail GHG emissions | |

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

| | Parameters | Details |
|---|---|---|
| **2.1** | **DETAILS OF THE BLOCK** | |

<table>
<tr><td>2.1.1</td><td>Name of the Geological Report with month and year of preparation,</td><td></td></tr>
<tr><td>2.1.2</td><td>Brief information of local geology</td><td></td></tr>
<tr><td>2.1.3</td><td>Particulars of adjacent Area/ blocks: North, South, East, West</td><td></td></tr>
<tr><td>2.1.4</td><td>Area of the geological block projectised "in Ha"</td><td></td></tr>
<tr><td>2.1.5</td><td>Balance area yet to be projectised "Ha"</td><td></td></tr>
<tr><td>2.1.6</td><td>Likely geological Resource in the area yet to be projectised "MTPA"</td><td></td></tr>
<tr><td>2.1.7</td><td>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.</td><td>Cardinal Point Co-ordinates of the non-coal /lignite or coal/lignite bearing area/existing mining lease outside the block, <u>which is proposed to be included in the project area</u><br><table><tr><th>ID</th><th>Latitude</th><th>Longitude</th></tr><tr><td>1</td><td></td><td></td></tr></table></td></tr>
<tr><td>2.1.8</td><td>Certificate of Qualified person/ Accredited Mining Plan preparing agency (MPPA)</td><td>Cardinal Points Co-ordinates of the Proposed Lease Area considered in the Mining Plan<br><table><tr><th>ID</th><th>Latitude</th><th>Longitude</th></tr><tr><td>1</td><td></td><td></td></tr></table></td></tr>
<tr><td>2.1.9</td><td>KML file of the Proposed lease area, Project Area and geological block.</td><td>Note: Printed copy of the KML file superimposed in the recent (not older than one year) dated Satellite Image duly certified by an Accredited Agency should also be attached.<br>Note: The soft copy of the KML file shall also be part of the soft copy of the Mining Plan.</td></tr>
<tr><td>2.1.10</td><td>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.</td><td></td></tr>
<tr><td>2.1.11</td><td>Type of the Project (Operating under implementation) and year of Starting.</td><td></td></tr>
</table>

| **2.2** | **EXPLORATION, GEOLOGY AND ASSESSMENT OF RESERVE** | |
|---|---|---|
| 2.2.1 | Status of Exploration of the block | |
| 2.2.2 | Area covered by 'detailed' exploration within the block (<u>sq. km</u>) | |
| 2.2.3 | Whether entire lease area has been covered by ‘detailed’ exploration. | |
| 2.2.4 | No. of boreholes drilled within the mining area of the block | |

| | | |
|---|---|---|
| 2.2.5 | Whether any further exploration/study is required or suggested and time frame in which it is to be completed | |
| 2.2.6 | Year wise future programme of exploration | |
| 2.2.7 | Overall borehole density within the mining area (no./ sq. km) approx. | |
| 2.2.8 | Dip of the Seam & Geological Grade | |
| 2.2.9 | Seam wise thickness, depth and reserve | |

| 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 | |
| | | | | | | | | | | | |
| Total | | | | | | | | | | | |

| Seam | Extractable Reserve "Mt" | | | "Mt" | | | | | | | Reason not considered for mining |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Depletion of Reserve | | | Balance Reserve | | | | |
| | UG | OC | Highwall | UG | OC | High wall | UG | OC | Highwall | Total | |
| | | | | | | | | | | | |

Note 1: 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.
Note 2: Details of the seams and reserve which have not been explored and considered for planning.

| | | |
|---|---|---|
| 2.2.10 | Methodology of resources estimation (also mention if any software package has been used). | (In Maximum 500 Words) |
| 2.2.11 | Average GCV "KCal/kg" | |
| 2.2.12 | Gross Geological Reserve of the block "Mt" | |
| 2.2.13 | Net Geological Reserve of the block "Mt" | |
| 2.2.14 | Mineable Reserve of the block "Mt" | |
| 2.2.15 | Blocked Reserve “Mt” | |
| 2.2.16 | Corresponding extractable Reserve of the block "Mt" | |
| 2.2.17 | Percentage of Extraction | |
| 2.2.18 | Resource already depleted (with date) | |
| 2.2.19 | Balance Resource (with date) | |

## Chapter 3: Mining

| | *Parameters* | *Details* |
|---|---|---|
| **3.1** | **MINING METHOD** | |
| 3.1.1 | Existing method of mining if the mine is under operation | |
| 3.1.2 | Proposed method of mining with justification on suitability of method of mining. | • Seams to be worked, Choice of Mining Method and justification for Optimization of targeted capacity, sequence of mining, production scheduling, equipment configuration etc.<br>• Behaviour of coal roof and 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).<br>• 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.<br>• **Location of Mine Opening:** In case of opencast mines, location of Access trench and 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 as per clause 2.2.1 (c) of these guidelines 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 and justification thereof.<br>• In case of underground mining, number and location, length and 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 |

<table>
<tr><td></td><td></td><td>• Seams to be worked, method of working, optimization of coal roof and 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 as per clause 2.2.1 (c) of these guidelines 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).<br>• 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 3000 Words)</td></tr>
<tr><td>3.1.3</td><td>Coal production capacity proposed "MTPA"</td><td></td></tr>
<tr><td>3.1.4</td><td>The calendar year from which the production will start</td><td></td></tr>
<tr><td>3.1.5</td><td>Year of Achieving rated production</td><td></td></tr>
<tr><td>3.1.6</td><td colspan="2">Tentative Coal Production Plan "Mt"
<table>
<tr><th colspan="2">Year</th><th colspan="3">Coal Production Schedule</th><th rowspan="2">OB “MM$^3$,</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>
<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 colspan="2">Sub-Total (From First Year)</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="2">Total</td><td></td><td></td><td></td><td></td><td></td></tr>
</table>
Note: Calendar Plan / Production Plan for the entire life of the mine.</td></tr>
</table>

| | | |
|---|---|---|
| 3.1.7 | **Rated Capacity "MTPA"** | |
| | - By OC | |
| | - By UG | |
| | - Overall | |
| 3.1.8 | **Life of the mine: "Years"** | |
| | - By OC | e.g., 20 years (From 1st year to 20th year) |
| | - By UG | e.g.,10 years (From 21st year to 30th year) |
| | - Overall | e.g., 30 Years |
| 3.1.9 | 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 | |
| 3.1.10 | Type of Equipment/HEMM proposed | |

## Chapter 4: Safety

| | ***Parameters*** | ***Details*** |
|---|---|---|
| **4.1** | **Safety** | |
| 4.1.1 | **Important safety aspects:** | (Maximum 500 Words) |
| 4.1.2 | A Commitment from the project proponent that entire mining operation will be carried out as per the Statutory provision related to Safety. | |

## Chapter 5: Infrastructure Facilities

| | ***Parameters*** | ***Details*** |
|---|---|---|
| 5.1 | Mine infrastructure required e.g., Equipment maintenance planning, Office buildings, Workshop, Power supply arrangement, Water supply etc. | (Tabular Form)<br>(Location to be shown in Conceptual Plan/Plates) |

| **Sl. No.** | **Facilities/ infrastructure to be retained** | **Area, Ha** |
|---|---|---|
| 1. | | |
| | **Total** | |

| **Sl. No.** | **Facilities/ infrastructure to be Dismantled** | **Area, Ha** |
|---|---|---|
| 1. | | |

| | | | | |
|---|---|---|---|---|
| | | | **Total** | |
| 5.2. | Power supply and illumination. | (Max 500 Words)<br>(Location to be shown in Plates) | | |
| 5.3 | Drainage and Pumping: Assessment of Volume of Water for Pumping, Pumping Capacity and Pump Selection | (Max 500 Words)<br>(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)<br>(Location to be shown in Plates) | | |
| 5.5 | Coal washing and the proposed handling/ disposal of rejects. | (Max 500 Words)<br>(Location to be shown in Plates)<br>Annual Raw coal Feed plan and product with reduction in ash%<br>from feed to product must be furnished in a tabular form | | |

## Chapter 6: Land Requirement

| | ***Parameters*** | ***Details*** |
|---|---|---|
| 6.1 | **LAND REQUIREMENT** | |
| 6.1.1 | Total Land requirement for the mine in "Ha" | ***Break-up of pre-mining land type (indicative)and source of data.*** |

| **Land Type** | | **Area** |
|---|---|---|
| Tenancy | | |
| Govt. Non-Forest | | |
| Forest | | |
| Free Hold | | |
| **Total** | | |

| | |
|---|---|
| 6.1.2 | During mining Land use details: |

| Type | Land use (Proposed) | Land Use (End of Life) | Land Use (Post Closure) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Agricultural land | Plantation | Water Body | Public/ Company Use | Forest Land (Returned) | Undisturbed | Total |
| 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 and Infrastructure area | | | | | | | | | |
| Fly ash dumping, if any | | | | | | | | | |
| 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 | | | | | | | | | |
| | **Total** | | | | | | | | | |

| | | |
|---|---|---|
| 6.1.3 | No. of villages/Houses to be shifted | |
| 6.1.4 | Name of villages requiring R&R | |
| 6.1.5 | Population to be affected by the project | |
| 6.1.6 | Proposed Rehabilitation programme | |
| **6.2** | **DETAILS OF LEASE** | |
| 6.2.1 | Status of Lease | |
| 6.2.2 | Existing Lease Area "Ha" | |
| 6.2.3 | Period for which Mining Lease has been granted/is to be renewed/ is to be applied for. | |
| 6.2.4 | Date of expiry of earlier Mining Lease, if any | |
| 6.2.5 | Whether the lease boundary/ required boundary is same as mentioned in the allotment order | |
| 6.2.6 | Lease Area (applied/ required) as per the Mining Plan under consideration (Ha) | |
| 6.2.7 | Whether the applied lease area falls within the block | |
| 6.2.8 | Area (Ha) of lease which falls outside the delineated Block Boundary/Existing Mining Lease | |
| 6.2.9 | **Details of outside area:** | |

| | | |
|---|---|---|
| | 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 | **Whether some part(s) of the allotted block has not been applied for mining lease.** | |
| | 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

| | ***Parameters*** | ***Details*** |
|---|---|---|
| **7.** | **ENVIRONMENTAL MANAGEMENT** | |
| 7.1 | The project proponent shall submit an undertaking that the mine shall be operated as per the Environment Clearance (EC) and Forestry Clearance (FC) for the project. | |

## Chapter 8: PROGRESSIVE and FINAL MINE CLOSURE PLAN

| | *Parameters* | *Details* |
|---|---|---|
| **8.1** | ***Land Degradation and restoration Schedule*** | |
| 8.1.1 | Tentative Land Degradation and Technical Reclamation (Cumulative Area "Ha") | |

| **Stage/ Year** | **Land Degraded** | | | | **Technically Reclaimed Area** | | | |
|---|---|---|---|---|---|---|---|---|
| | **Excav.** | **Dump (Extn + Top Soil)** | **Infra/ others** | **Total** | **Backfill/Stowing** | **Dump (Extn+ + Top Soil)** | **Others** | **Total** |
| **Up to Base year *** | | | | | | | | |
| Y-1 | | | | | | | | |
| Y 5 to Y 30 every 5 years up to 30 years | | | | | | | | |
| **Post Mining Closure** | | | | | | | | |
| Y-33 | | | | | | | | |
| **Post Closure Monitoring** | | | | | | | | |
| Y-35 | | | | | | | | |

*Base year: Year of assessment of reserve

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 of development.

Stages of reclamation and restoration of land should be given for years mentioned in clause 2.2.1 (c) of these guidelines and for post-mining closure and post closure monitoring period.

8.1.2 **Tentative Biological Reclamation (Cumulative in "Ha")**

| **Year/Stage** | **Biologically Reclaimed Area** | | | | | **Forest land (Return)** | **Un Disturbed/ To be left for Public/com Use** | **Total** |
|---|---|---|---|---|---|---|---|---|
| | **Agriculture** | **Plantation** | **Water Body** | **Public/ Company Use** | **Total** | | | |
| **Up to Base year** | | | | | | | | |
| Y-1 | | | | | | | | |
| Y 5 to Y 30 every 5 years up to 30 years | | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Post Mining Closure** | | | | | | | | | | |
| | Y-33 | | | | | | | | | | |
| | **Post Closure Monitoring** | | | | | | | | | | |
| | Y-35 | | | | | | | | | | |

Stages of reclamation and restoration of land should be given for years mentioned in clause 2.2.1 (c) of these guidelines and for post mining closure and post closure monitoring period

| | | |
|---|---|---|
| **8.2** | **Post Closure Water Quality management:** | (Max 200 Words)<br>(Existing water bodies available in the lease hold area; Measures to be taken for protection of the same including control of erosion, sedimentation, siltation, water treatment, diversion of water course, if any; Measures for protection of contamination of ground water from leaching etc;) |
| **8.3** | **Post Closure Air Quality management** | (Max 200 Words) |

**8.4 Waste Management (Figures in $Mm^3$) (Tentative)**

| **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 5 to Y 30 every 5 years up to 30 years** | | | | | | | | | | |
| **Post Mining Closure** | | | | | | | | | | |
| **Y-33** | | | | | | | | | | |
| **Post Closure Monitoring** | | | | | | | | | | |
| **Y-35** | | | | | | | | | | |

* Considering the life of 35 years in this case

For years mentioned in clause 2.2.1 (c) of these guidelines and for post-mining closure and post closure monitoring period

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

**(All Figures are Cumulative and in $Mm^3$)**

| **Year/Stage** | | **Top Soil Removal Plan** | **Top Soil Used** | | | | |
|---|---|---|---|---|---|---|---|
| | | | **Spreading Over Embankment** | **Spreading over Backfill area** | **Spreading over External OB Dump area** | **Used in Green Belt area** | **Total Utilised** |
| **Up to Base year** | | | | | | | |
| **Y-1** | | | | | | | |
| **Y 5 to Y 30 every 5 years** | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **upto 30 years** | | | | | | | |
| | **Post Mining Closure** | | | | | | | |
| | **Y-33** | | | | | | | |
| | **Post Closure Monitoring** | | | | | | | |
| | **Y-35** | | | | | | | |

*Considering the life of 35 years in this case
For years mentioned in clause 2.2.1 (c) of these guidelines and for post-mining closure and post closure monitoring period.

| | |
|---|---|
| **8.6** | Management of Coal Rejects |
| **8.7** | Restoration of Land used for Infrastructure |
| **8.8** | Disposal of Mining Machinery |
| **8.9** | Safety and Security |
| **8.10** | **Mine Closure Cost and Financial Assurance** |
| **8.10.1** | **Mine Closure Cost:** |

| **Cost of Activities to be taken up for closure of the mines** | | | | | |
|---|---|---|---|---|---|
| **Head** | **Particulars** | **Unit** | **Proposed Mine Closure Activities Cost** | | |
| | | | **Quantity** | **Rs ₹/ Unit** | **"Rs. Cr"** |
| **A. Progressive Mine Closure** | Barbed wire fencing around the mine (Pit and Dump) | m | | | |
| | Waste Management | M Cum | | | |
| | Filing of Void - Rehandling of Dump (Not carried out as part of regular mining operation) | $Mm^3$ | | | |
| | Top soil Management | $Mm^3$ | | | |
| | 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 and Management | | | | |
| | Isolation Stoppings | | | | |
| | Any other activities | | | | |
| | **Sub Total (A)** | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | **B. Post Closure Activities** | | | | | |
| | Dismantling of Infrastructure and Disposal/ rehabilitation of Mining machinery | Dismantling of Workshop | LS | | | |
| | | Dismantling of CHP | LS | | | |
| | | Dismantling of mine structures | | | | |
| | | Dismantling of Civil structures | LS | | | |
| | | 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 | | | |
| | | Dismantling of Power lines | LS | | | |
| | | **Sub total** | | | | |
| | Safety and Security | Barbed wire fencing around mine (Pit and dumps) | m | | | |
| | | Concrete wall with masonry / concrete pillars around the pit | m | | | |
| | | Securing entries (shaft/inclines) | Nos. | | | |
| | | Securing of Inclines | Nos. | | | |
| | | Appropriate fencing around the water body | m | | | |
| | | installation of bore well pump | | | | |
| | | Stabilisation viz. benching, pitching etc. of side walls of the water body | LS | | | |
| | | Toe Wall around the dump | m | | | |
| | | Garland drain | m | | | |
| | | Drainage Channel from main OB dump | m | | | |
| | | **Sub total** | | | | |
| | Technical and Biological Reclamation of Mined out of land and OB dump | Filing of Void | $Mm^3$ | | | |
| | | OB Rehandling for backfilling | $Mm^3$ | | | |
| | | Terracing, blanketing with soil and vegetation of Extremal OB Dump | Ha | | | |
| | | peripheral road, gates, view point, cemented steps on bank | | | | |
| | | Expenditure on development of Agricultural land | | | | |
| | | Landscaping and Plantation | | | | |
| | | **Sub total** | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 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 | | | | | |
| | **Sub total** | | | | | |
| Sustainability | Skill Development and Trainings (Alternative Source of livelihood) | | | | | |
| | Afforestation | | | | | |
| | Agriculture and other Allied Activities | | | | | |
| | Eco-Tourism Development | | | | | |
| | Flora and fauna Conservation/Wildlife conservation | | | | | |
| | Water Resource Management/Conservation | | | | | |
| | Clean Energy Projects | | | | | |
| | Art and Culture | | | | | |
| | Women Empowerment | | | | | |
| | Welfare of aged and disabled people | | | | | |
| | Sustainable Living | | | | | |
| | Sanitation | | | | | |
| | **Sub Total (B)** | | | | | |
| **Grand Total (A+B)** | | | | | | |

**Appendix –IV**

**Indicative list for community development and livelihood related activities**

| Sl. No. | Major Head | Activity (Not covered under any other statutory obligations) |
|---|---|---|
| **1.** | Skill Development and Trainings (Alternative Source of livelihood) | Offer skills, resources and knowledge development and training in alternative livelihoods like agriculture, handicrafts, poultry farming, tailoring, entrepreneurship or IT skills. Support project affected person /families to develop skills and set up business. |
| **2.** | Fruit bearing, medicinal & local species plantation / Afforestation | Promote horticulture, apiculture, plantation through Miyawaki technique, permaculture, Social Forestry, Livelihood-oriented plantation, community-based tree plantation in and around project area. |
| **3.** | Agriculture and other Allied Activities | Promote sustainable agriculture, organic farming, and agroforestry by improving irrigation and providing high-quality seeds in and around project area. Develop & use new scientific methods of agriculture and farming. Support Animal Husbandry. |
| **4.** | Eco-Tourism Development | Convert mined-out areas into eco-tourism hubs with activities like boating, trekking, or cultural tourism in and around project area. |
| **5.** | Flora and fauna Conservation/Wildlife conservation | Reforestation, Eco-parks and Biodiversity Projects [in and around project area]: Reclaim mined land with native species and develop biodiversity parks. Promote pisciculture spaces. |
| **6.** | Water Resource Management/Conservation | Supply clean water and irrigation facilities in and around project area. Rehabilitate and rejuvenate water bodies affected by mining activities. |
| **7.** | Clean Energy Projects | Implement solar or biogas projects to provide affordable energy to local communities in and around project area. |
| **8.** | Art and Culture | Promote indigenous and local know-hows including promoting traditional practices related to art, culture and heritage in and around project area. |
| **9.** | Women Empowerment | Initiatives to support women empowerment in and around project area. |
| **10.** | Welfare of aged and disabled people | Special program for welfare of aged and disabled people in and around project area. |
| **11.** | Sustainable Living | In and around project area: Outsourcing of Operation and Maintenance of created assets/ public spaces under mine closure to local communities, self-help groups and project affected person/families. Teach communities about sustainable practices, waste management, and renewable energy. |
| **12.** | Sanitation | In and around project area: Collection, transportation & disposal of waste, cleaning of public places, provision of proper drainage & Sewage Treatment Plant, provision for disposal of fecal sludge, provision of toilet and other related activities. |
| **13.** | Any other community development project related to mine closure as approved by Mine Closure Advisory Committee. | |

**Note:** Claim for expenditure towards any one item in the above list shall not exceed one third of the five yearly total escrow amount earmarked exclusively to be spent on mine closure activities under the head.

**Appendix -V**

| Indicative (not exhaustive) list of activities under mine closure | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **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 | **Progressive Mine Closure Activities** | Barbed wire fencing around the Mine (Pit and Dump) | | | | | | | | | |
| 2 | | | | | | | | | | | |
| 3 | | | | | | | | | | | |
| 4 | | Waste Management | | | | | | | | | |
| 5 | | Top soil management | | | | | | | | | |
| 6 | | Technical and biological reclamation of mined out land and OB dump | | | | | | | | | |
| 7 | | Plantation over virgin area including Green Belt | | | | | | | | | |
| 8 | | Manpower cost and supervision | | | | | | | | | |
| 9 | | Toe wall around the dump | | | | | | | | | |
| 10 | | Garland drain | | | | | | | | | |
| 11 | | Stowing | | | | | | | | | |
| 12 | | Subsidence monitoring and management | | | | | | | | | |
| 13 | | Isolation stopping | | | | | | | | | |
| 14 | | Air, Water quality monitoring | | | | | | | | | |
| 15 | | | | | | | | | | | |
| 16 | | Any other if any | | | | | | | | | |
| | | Sub Total | | | | | | | | | |
| | **Final Closure Activities** | | | | | | | | | | |
| 1 | **Dismantling of Infrastructure, Disposal of Mining Machinery** | Dismantling of workshop | | | | | | | | | |
| 2 | | Dismantling of pumps and pipes/other facilities | | | | | | | | | |
| 3 | | Dismantling of UG equipment | | | | | | | | | |
| 4 | | Dismantling of power line | | | | | | | | | |
| 5 | | Dismantling of mine structures | | | | | | | | | |
| | **Safety and Security** | Sub - Total | | | | | | | | | |
| 1 | | Barbed wire fencing around mine (Pit and dumps) | | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2 | | Concrete wall with masonry / concrete pillars around the pit | | | | | | |
| 3 | | Securing entries(shaft/inclines) | | | | | | |
| 4 | | Appropriate fencing around the water body and installation of bore well pump | | | | | | |
| 5 | | Stabilisation viz. benching, pitching etc. of side walls of the waterbody | | | | | | |
| 6 | | Toe Wall around the dump | | | | | | |
| 7 | | Garland drain | | | | | | |
| 8 | | Drainage Channel from main OB dump | | | | | | |
| | | Sub - Total | | | | | | |
| 1 | **Technical and Biological reclamation of mined out land and OB Dump** | Filing of Void | | | | | | |
| 2 | | OB Rehandling for backfilling | | | | | | |
| 3 | | Terracing, blanketing with soil and vegetation of Extremal OB Dump | | | | | | |
| 4 | | Peripheral road, gates, viewpoints, Cemented steps on bank | | | | | | |
| 5 | | Expenditure on the development of agricultural land | | | | | | |
| 6 | | Landscaping and Plantation | | | | | | |
| 7 | | Stowing | | | | | | |
| 8 | **Others** | Air, Water quality monitoring | | | | | | |
| | | Sub - Total | | | | | | |
| 1 | **Post Closure Monitoring and Supervision** | Power cost | | | | | | |
| 2 | | Post mining water quality management | | | | | | |
| 3 | | Post mining air and soil quality management | | | | | | |
| 4 | | Subsidence monitoring for 5 years | | | | | | |
| 5 | | Manpower cost and supervision | | | | | | |
| | | Sub - Total | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Sustainability** | Skill Development and Trainings (Alternative Source of livelihood) | | | | | | | | | |
| 2 | | Fruit bearing, medicinal & local species plantation / Afforestation | | | | | | | | | |
| 3 | | Agriculture and other Allied Activities | | | | | | | | | |
| 4 | | Eco-Tourism Development | | | | | | | | | |
| 5 | | Flora and fauna Conservation/Wildlife conservation | | | | | | | | | |
| 6 | | Water Resource Management/ Conservation | | | | | | | | | |
| 7 | | Clean Energy Projects | | | | | | | | | |
| 8 | | Art and Culture | | | | | | | | | |
| 9 | | Women Empowerment | | | | | | | | | |
| 10 | | Welfare of aged and disabled people | | | | | | | | | |
| 11 | | Sustainable Living | | | | | | | | | |
| 12 | | Sanitation | | | | | | | | | |
| | | Sub - Total | | | | | | | | | |
| | | TOTAL COST | | | | | | | | | |