

**F. No- MPS/14/2025[E-363164]
Government of India
Ministry of Coal
MPS Section

कमरा नंबर 622-ए, शास्त्री भवन,
नई दिल्ली, दिनांक 27th October, 2025

Office Memorandum

Subject: Stakeholder Consultation on Draft Guidelines for preparation of Mining Plan and Mine Closure Plan for Underground Coal and Lignite Gasification blocks, 2025.

The undersigned is directed to forward herewith the Draft Guidelines for the Preparation of Mining Plan and Mine Closure Plan for Underground Coal and Lignite Gasification Blocks, 2025, for Stakeholder Consultation. The same is also placed on the website of the Ministry of Coal.

2. Concerned Stakeholders may offer their views/observations/comments on the draft document on the email id:socrc.moc@nic.in within 30 days of uploading the document on the website. Any views/observations/comments received after the due date shall not be entertained.

Encl: As above

भवदीय
Digitally signed by
HITLAR SINGH
Date: 27-10-2025
11:50:22
(Hitlar Singh)

Under Secretary to Govt. of India

To

1. Secretary, Ministry of Environment, Forest & Climate Change
2. Chairman, Central Ground Water Board
3. DG, DGMS
4. CMDs of CIL/SCCL/NLCIL
5. Coal Controller
6. Director (Nominated Authority)- For circulation to all coal companies except those stated above.

Copy to:

1. NIC- with request to upload on the website of the Ministry of Coal
2. DS(Admin), MoC- With request to issue a small public notice in newspaper informing that the document is available at the website for comments



Draft

Mining Plan Guidelines

for

Underground Coal/Lignite Gasification Blocks

October 2025

List of Abbreviations

CPCB = Central Pollution Control Board
CCO = Coal Controller Organisation
Crs = Crores =10 million
CMDPA = Coal Mine Development and Production Agreement
CMPDIL = Central Mine Planning and Design Institute Limited
DGPS = Differential Global Positioning System
DGMS = Directorate General of Mines Safety
ERA = Expert Review Agency
EC = Environment Clearance
FC = Forest Clearance
GR = Geological Report
Ha = Hectare
IIT = Indian Institute of Technology
ISM = Indian School of Mines
Km = Kilometre
LS = Lumpsum
m = Metre
MCDR = Mineral Conservation and Development Rules
Mt = Million Tonne
MTPA = Million Tonne Per Annum
ML = Mining Lease
MoEFCC = Ministry of Environment, Forest, and Climate Change
MCR = Mineral (Other than Atomic and Hydrocarbons Energy Minerals) Concession Rules, 1960
Mm³ = Million Cubic Meters
MPPA = Mining Plan Preparing Agency
NABET = National Accreditation Board for Education and Training
PAPs= Project Affected Persons
PL = Prospecting Licence
PRC= Peak Rated Capacity
QCI = Quality Council of India
QP = Qualified Person
SPCB = State Pollution Control Board
SWCS= Single Window Clearance System
t = Tonne
UG = Underground
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

October, 2025

OFFICE MEMORANDUM

Subject: Guidelines for preparation of Mining Plan and Mine Closure Plan for Underground Coal and Lignite Gasification blocks, 2025.

Chapter-I

Preliminary

1.1. Short title and commencement. - (a) These guidelines shall be called “**Guidelines for preparation of Mining Plan and Mine Closure Plan for Underground Coal and Lignite Gasification Blocks 2025**”.

(b) These Guidelines shall come into force from the date of publication.

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

1.2. Objectives: The objectives include optimizing coal and lignite extraction using sustainable in-situ gasification technology with minimal waste and surface impact, mitigating risks like subsidence, fire, and water contamination through continuous monitoring and control, minimizing environmental impact, and ensuring compliance with regulations. Additionally, the guidelines integrate progressive mine closure with operations, ensuring final closure tasks such as site rehabilitation, well sealing, cavity stabilization, and ongoing post-closure monitoring for sustainability and safety.

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 estimation of resources should be at the end of the previous financial year.

b) 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;

- c) “Leased Area” as per Section 3 (ac) of MMDR, Act, 1957 means the area specified in the Mining lease 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.
- d) “Life of the Mine” means the total development and production years as given in the calendar plan from the zeroth year to the post-mining closure period and including the post-closure monitoring period;
- e) “Mine closure” means the comprehensive process of closing and securing a mine upon completion of mining activities. This involves a sequence of actions and strategies designed to safeguard the environment, local communities, and mining sites, mitigating and addressing social impacts, executing land reclamation, and restoring the site to an acceptable level. Post closure monitoring period means the period of 3 (years) years, including 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.
 - i. Post mining closure period means the period that starts after the cessation of the gasification operations until all the activities of final mine closure are completed.
 - ii. “Production Life of the Mine” means the period of development and production years as given in the calendar plan.
- f) “Project Area” for UCG means the total area specified in the mining plan within which gasification operations can be undertaken and includes infrastructure as per the definitions of the Mines Act, 1952.
- g) Underground Coal Gasification (UCG): Underground coal gasification (UCG) is one of the methods of underground coal mining that converts coal into a gas mixture (synthetic gas, i.e., syngas) while the coal or lignite remains in situ underground.

1.4. Applicability: All coal or lignite gasification mines shall have a mining plan approved by the competent authority to produce syngas. The approved mining plan shall be valid for the entire 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 balance life.

Chapter-II

Mining Plans

2.1. The mining plan for UCG must include detailed phases of the mine life, such as the 1st year, rated capacity year, final year, and post-closure period. These plans ensure proper management and monitoring throughout the mine's entire operational and closure phases.

2.2. Pilot Study for Feasibility Assessment:

The Mining Plan for UCG shall be formulated based on the outcomes of a pilot study before initiating full-scale commercial UCG operations. The pilot study will evaluate the technical feasibility, environmental impact, safety considerations, and necessary mitigation measures. This study should be conducted by reputed scientific or research institutions or companies with proven expertise in coal gasification. Additionally, results from completed pilot studies conducted in the same or adjacent blocks or coalfields may be taken into account when formulating the Mining Plan.

2.3. Project information: The project proponent is to delineate crucial details such as the project's location, details of allotment, previous approval of the Mining Plan, if any, and surface features of the block.

2.4. Geology: The coal or lignite block shall be explored if exploration has not been carried out. The project proponent shall carry out a geophysical survey (2D/3D Seismic survey) along with required drilling or any suitable method to demarcate the coal/lignite resources, including the presence of geological disturbances, aquifers. The project proponent shall envisage the action plan for exploration and liquidation of resources to be projectized. The Mining Plan shall be formulated as per the Geological Report approved by the competent authority.

2.5. Mining Method: The paramount consideration is to be given by the project proponent to determine an in-situ gasification process that achieves optimum production of syngas while ensuring safe and sustainable resource management.

2.6. Safety Management: The project proponent shall ensure that all gasification operations are performed considering the due aspect of safety and prepare a Safety Management Plan specific to UCG.

2.6.1. Site-specific study for surface subsidence: Size of gasifiers/reactors and the layout of the UCG panels shall be proposed in the Mining Plan based on the site-specific study conducted for predicting cavity growth, extent, and amount of probable subsidence. However, based on the actual experience during the commercial operation, the design and size of gasifiers may be changed.

2.6.2. Subsidence Monitoring: A network of surface monitoring points must be established to provide early warnings of any ground movement or land subsidence.

2.6.3. Site-specific study for control of possible coal seam fire: Detailed fire control methods must be included in the Mining Plan based on the pilot study to ensure safe underground coal gasification operations.

2.6.4. Hydrogeology: The target coal/lignite seam should be at a sufficient depth (preferably >300 meters) and safely distanced from groundwater tables and sensitive aquifers to protect drinking, irrigation, and industrial water sources; the confining layers above must have low hydraulic conductivity to prevent contaminant migration, the site must be geologically stable and outside active seismic zones, and the project boundary must maintain safe distances from ecologically sensitive zones, habitations, wildlife sanctuaries, and forests, with plans to mitigate risks from major faults and fractures included in the mining plan.

2.6.5. Condensate: The mitigative measures shall be adopted for safe disposal/utilization of the condensate produced from the coal gasification process.

2.6.6. Emergency Response Plan: A detailed plan to be prepared by the project proponent outlining specific measures to be taken for the mitigation of identified hazards, i.e., loss of hydraulic containment, detection of groundwater contamination, or unexpected subsidence & fire, etc.

2.7. Infrastructure facilities:

(a) Syngas Evacuation and Processing Infrastructure: Project proponents may establish dedicated, leak-proof syngas pipeline networks with real-time pressure and temperature monitoring for safe transport from the gasification site to processing or utilization facilities. Where feasible, pit head or nearby end-use plants like power generation or other plants are encouraged to minimize emissions and enhance efficiency.

(b) Surface Infrastructure and Utility Integration: The UCG project may include surface infrastructure like syngas cleaning units, flare stacks, water treatment and condensate disposal/utilization systems, and integrated control centers, prioritizing mechanization and automation for continuous monitoring and operational control. It is recommended to integrate renewable energy sources for auxiliary power, advanced safety systems such as gas leak, subsidence, fire, and water monitors, and plan facilities for carbon capture and utilization (CCU) to ensure sustainable, secure, and environmentally responsible operations.

2.8. Studies for Impact Assessment Report: A comprehensive Impact Assessment Report with a specific and detailed chapter on hydrogeology shall be prepared by an accredited agency/consultant. This report includes:

(a) **3D Hydrogeological Model:** A three-dimensional model of the subsurface environment for the entire coal block. This model must clearly delineate all geological formations, aquifers, aquitards, and structural features.

(b) Baseline Data Collection:

- i. Establishment of a network of monitoring wells and piezometers at multiple depths (multi-level) in the core and buffer zones.
- ii. Continuous monitoring of groundwater levels for at least one full year (pre-monsoon, monsoon, post-monsoon) to establish baseline flow patterns.
- iii. Comprehensive baseline analysis of groundwater quality, including major ions, heavy metals, and a specific suite of organic compounds likely to be generated during gasification.
- iv. Contaminant Transport and Fate Modeling: Sophisticated numerical simulations predicting the potential migration pathways and concentrations of contaminants from the gasification cavity under various scenarios, including operational failures. The model should project impacts for a period of at least 10/50 years post-operation. This should evaluate the potential impact on groundwater using particle tracking techniques to define the contaminant capture zone.

2.8.1. Operational Phase Conditions: The project proponent shall comply following mandatory conditions during operation:

- i. **Hydraulic Containment:** The project proponent should operate to prevent the outward flow of contaminants in surrounding acquirers.
- ii. **Regular Monitoring:** Regular groundwater level monitoring in and around mines must be conducted using a network of piezometers fitted with telemetry-enabled Digital Water Level Recorders, along with online water quality sensors where feasible. Data from all monitoring wells should be transmitted in real-time to a central server accessible to CPCB/SPCB and CGWA for oversight and compliance.
- iii. **Strict Reporting:** Project proponent shall submit the monthly monitoring reports to the Central/State Pollution Control Board (CPCB/SPCB) and CGWA, and immediately report any breach of operational parameters or detection of contamination.

2.9. Project Area for mining: The coal gasification area envisaged in the Mining Plan must be restricted within the allotted or vested geological block boundary or existing mining lease. A certificate to this effect is to be provided by the Qualified Person (QP) or Accredited Mining Plan Preparing Agency (MPPA) 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).

2.10. Compliance Report: A compliance report for operating mines shall be submitted by the project proponent with respect to approval conditions of the Mining Plan, including any deviations and revisions for changes every 10 years to the Coal Controller.

2.11. Revision of Mining Plan:

(a) The Mining Plan to be submitted for approval of the Coal Controller for reasons other than specified in Para 2.11 (b). While submitting of revised mining plan, the reason for the 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) The project proponent is empowered to make revisions 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, i.e., boreholes.
- iii. Increase / Decrease in production up to fifty percent of the sanctioned rated capacity, and also the associated relevant changes
- iv. Changes in the specification or configuration of equipment
- v. Change in UCG technology

The project proponent shall submit a specific report prepared by QP/MPPA, containing relevant changes made in the approved mining plan, to the Coal Controller. The Project Proponent shall certify that no other changes have been made in the approved mining plan other than those submitted in the report.

Chapter-III

Mine Closure Plans

3. Mine closure guidelines aim to ensure scientific mine 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 or better, while also holding project proponents accountable for their closure obligations.
 - 3.1. **Mine Closure Plans:** Mine Closure Plans shall comprise a Progressive Closure Plan, updated every five years, and a Final Closure Plan for end-of-mine activities. The Progressive Plan covers ongoing land restoration, while the Final Plan ensures land is returned to its near-original state, repurposing, community development, etc.
 - 3.2.1 **Restoration and Repurposing:** Project proponents shall complete all closure and repurposing activities before the Final Closure Certificate is issued, with third-party agencies empaneled by the Central Government certifying the expenditures.
 - 3.2.2 (a) **People and communities:** A Zone of Impact should be identified in the Social Impact Assessment to address livelihood and income effects due to mine closure. Project proponents shall engage local communities through structured consultations and collaborative decision-making to incorporate their perspectives and develop sustainable solutions.
 - (b) **Skill Development and Livelihood:** Efforts shall be made to enhance the skills and livelihoods of communities near mines for self-sustenance and employment.
 - 3.2. **Cavity Cleanup and Management:** The project proponent must submit a detailed plan for the post-burn management and remediation of the underground cavity, which may include inertisation / flushing and subsequent treatment of the extracted fluid, if any, at the surface.

3.3. Long-Term Monitoring: An assessment of recovery rates in hydraulic head and water table elevation, changing flow paths during the recovery period, and the ultimate geometry of the post-recovery flow system is usually undertaken using a three-dimensional groundwater model of this closure scenario. Post-closure monitoring of groundwater levels, quality, and ground stability shall continue for a period of 3 years.

3.4. Mine Closure Cost: The total cost for carrying out such activities shall be estimated for assessment of mine closure cost of the mine involving final mine closure activities such as dismantling of structures/demolition and cleaning of sites, rehabilitation of machinery, plantation, landscaping, for specified post environmental monitoring, supervision charges, power cost, protective and rehabilitation measures including their maintenance and monitoring, miscellaneous charges barbed wire fencing all around the vulnerable area etc. for the post-closure period.

3.4.1. Escrow Amount:

The mining company must open a Fixed Deposit Escrow account with the Coal Controller Organization in a scheduled bank before starting gasification operations. The rate for deposition towards the escrow account is Rupees Fifty Thousand per hectare for the underground coal gasification project. These rates will be considered as the Base Rate as of **September 2025** to be escalated on the latest WPI declared from time to time by the Government of India. These rates may be revised every 5 years by the Ministry of Coal.

[Illustration: $\{(\text{₹ } 50000 \times \text{Latest WPIs}) / (\text{WPI as of September 2025, i.e., base date})\} = \text{₹ in lakh}$].

The annual escrow amount is to be computed by 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 gasification life in years. An amount equal to the escrow amount 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 30th September of the respective year, failing which an interest @ 1 percent/month will be charged on the amount to be deposited for that respective year.

If the Mine owners fail to deposit the required annual amount, the Government may serve notice and subsequently withdraw the mining permission.

3.4.2. Reimbursement of Escrow Amount:

i) In line with periodic examination of the Closure Plan, up to 75 percent of the amount, including interest for the progressive closure period in the previous five years, shall be released. The balance amount shall be released to the mine owner/leaseholder at the end of the final Mine closure on compliance with all provisions thereof.

(ii) Balance amount at the end of the post-closure monitoring period shall be released to the mine owner on compliance of all provisions of the Closure Plan duly signed by the mine owner/lessee 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.

- 3.5. Final Mine Closure Plan:** The Mining Plan must include the Final Mine Closure Plan with updated cost estimates and details of the Escrow Account, submitted at least five years before final closure. It should also contain operational history, scientific findings, maps, and monitoring data. Final closure is complete only after acceptance of a third-party audit report, and failure to restore may lead to forfeiture of the Escrow Account.
- 3.6. Time Scheduling for mine closure:** Post closure monitoring period is to be taken as 3 (three) years.
- 3.7. Final Closure Certificate:** CCO shall issue the mine closure certificate once all reclamation, rehabilitation, and sustainability work as per the approved Mining Plan are completed. Mine closure is deemed complete after successful closure activities and post-closure monitoring. The certificate should be issued within three years of the post-mining closure period.

Chapter-IV

Miscellaneous

- 4.1. The approval of the mining plan shall not change the terms, conditions, and efficiency parameters of the CMDPA/Allotment Agreement without prior approval of the Nominated Authority or Central Government, as the case may be. The efficiency parameters mentioned in the CMDPA/Allotment Agreement shall be linked to the rated capacity of the mine.
- 4.2. **Approval Conditions:** (i) The project proponent shall take all necessary precautions regarding gasification workings, contamination of ground water, fire, management of subsidence 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) and Forestry Clearance (FC) for the project (v) Project Proponent should return the forest land after completion of mining activity as per the land surrender schedule submitted to Central Government during diversion of forest land.
- 4.3. **Statutory Obligation:** The legal obligations, if any, which the lessee is bound to implement, like special conditions imposed while execution of lease deed, approval of Mining Plan, conditions imposed by the Ministry of Environment, Forest and Climate Change (MoEFCC), Central Pollution Control Board (CPCB), State Pollution Control Board (SPCB), Directorate General of Mines Safety (DGMS), Central Ground Water Board (CGWB) or any other

statutory organizations describing the nature of conditions and compliance thereof, should be indicated in the Mining Plan.

- 4.4. 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.
- 4.5. **Implementation of the approved Mining Plan** shall be the sole responsibility of the mine owner.
- 4.6. **Responsibility of the mine owner:** The mine owner shall (i) ensure that the protective measures contained in the mine closure plan, including closure of wells, 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 1st July of every year, setting forth the extent of protective and rehabilitative works carried out as envisaged in the approved mine closure plans (Progressive and Final Closure Plans).
- 4.7. If the Coal Controller has reasonable grounds for believing that the protective 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 before the date of the order to be issued after giving an opportunity to be heard.
- 4.8. 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, and timeline of the Mining Plan

- 5.1. **Formulation of Mining Plan by Qualified Person (QP) or Accredited Mining Plan Preparing Agency (MPPA):** Formulation of Mining Plan shall be done by Qualified Person (QP)/ Accredited Mining Plan Preparing Agency (MPPA) in accordance with the recognition granted to QP/MPPA for preparation of mining plan u/s 22B of Mineral Concessions (Amendment) Rules, 2020.
 - 5.1.1. Accrediting the QP/Mining Plan Preparing Agency (MPPA): 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. QP or MPPA shall have recognition from the concerned company board for the qualification of the QP or accreditation of the MPPA is in line with the relevant provision of the MCR 1960.

- 5.2. **Submission of Mining Plan to Approving Authority:** Every mining plan submitted for approval/revision shall be accompanied by 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 the applicant's own cost. During examination of the Mining Plan by the Technical committee, if it is felt that a review by an expert or by a specialized agency is required, the committee may recommend referring the mining plan to such expert/agency with the approval of the Mining Plan 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 e-signature/digital signature, furnishing details of the QP/MPPA.
- 5.2.2. 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 the Administrative Section for the respective block, members of the Technical Committee, and the Coal Controller's office. Simultaneously, provision of SMS alerts shall be available at all stages.
- 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 the 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) Deputy Coal Controller of CCO or any officer nominated by Coal Controller till the regular appointment of Deputy Coal Controller- Member Secretary
 - b) Director Technical, MPS, Ministry of Coal- Member
 - c) One officer nominated by the Ministry of Petroleum & Natural Gas- Member
 - d) One officer nominated by DGMS- Member
 - e) Director Technical, CMPDIL-Member
- 5.3.4. Observations of the Committee Members, if any, 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. The 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 an 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 a 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 the communication of the observation.

5.5. **Approval:** Coal Controller Organization, New Delhi, has been delegated with the power of processing, scrutiny, and approval of the 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 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, Government 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, Government of India. However, in case of no dues already received from the Nominated Authority, CCO may grant final approval directly.

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 a copy of approved mining plans along with the approval letter to the Ministry of Environment, Forest and Climate Change, DGMS, CGWB, and District Administration through email for information.

5.7. **Violation cases:** In case of any deviation or violation noticed by the Technical Committee, depending on the gravity of the deviation or violation, the Technical Committee is to examine the extent of the violation for conditional approval or rejection of the mining plan. The Technical Committee can seek the opinion of the Legal Cell of the Ministry of Coal.

- 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.
- 5.8.1. In the interest of faster development of the UCG block, the Ministry of Coal may relax any of the provisions. It may also issue directions to CCO for removing any difficulties in the interest of faster coal production or mine development.
- 5.9. **Appeal:** The Secretary (Coal) will be the appellate authority in matters 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 the 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, the Ministry of Environment, Forest and Climate Change, CGWB, Ministry of Labour and Employment, etc.

Underground Coal Gasification-Tentative format for Pilot Project

PART A – Technical Assessment Report

1. Executive Summary

- Objectives, expected outcomes, recommendations for taking up the pilot study on a commercial scale, and further Research and Development scope.

2. Project Description

- Location, Block boundaries, area, and subsurface data (geology, seam data).
- Ownership details.

3. Geological, Geophysical & Petrophysical Analysis and proposed tests

- Exploration detail
- Resource and strata characteristics, Coal seam quality (Rank, Thickness)
- Hydrogeological and petrographic studies and site assessment.
- Report on pre-pilot study and Suitability for pilot-scale and UCG process.
- Baseline data generated for environment and subsidence risk

4. Drilling & Well Completion and Development Concept and Facilities

- Pilot well design, drilling schedule, completion strategies.
- Scheme for modular/pilot gasifier construction.
- Temporary utility setups (water, air/oxygen, surface testing tools).
- Measurement protocols, gas sample handling, safety features.

6. Gasification Process and Reservoir Testing

- Design for pilot gasification (injection/production wells, layout plan).
- Experimental parameters (oxidant injection, ignition strategies).
- Monitoring infrastructure (gas composition, flow rate, cavity changes).
- Evaluation of pilot test performance, syngas, and byproduct quality.

7. Health, Safety & Environment (HSE)

- Risk assessments (environmental baseline, groundwater protection).
- Monitoring plan, emergency preparedness, regulatory compliance.

8. Product Gas Utilization

- Handling of syngas, different test results, or laboratory analysis.

9. Any specific information by the agency conducting the pilot study, if any.

Underground Coal Gasification- Full-Scale Commercial Project

S.No.	Section	Key Points / Description
1	Executive Summary	Brief note on commercial objectives, recommendations of pilot study, projected outputs, safety, and downstream products.
2.	Project Description	Name of Coal / Lignite mine block
		Name and address of the applicant, rated capacity as per CMDPA, and Vesting order copy
		Site data (Geology, block size, licensee/operator details, agreements
		Geological information, including borehole details, coal seam, geological disturbances, resource details, grade of coal seam, and hydrogeological details. 3D seismic study
		Environmental baseline data & risk analysis,
		Details of the previous Mining plan, the conditions of approval
3.	Gasification Process & Reservoir Analysis	The methodology of work.
		Wellfield layout,
		Operation sequences
		Development Concept and Production Facilities: Utility setups, syngas conditioning, pipeline/surface infrastructure, quality control, safety
		Drilling for injection/production wells, Gasifiers/ reactors description, Gas production, and monitoring mechanism
4	Health, Safety & Environment (HSE)	Major Risks and uncertainties and Mitigative measures (Fire, Subsidence, Groundwater, Contaminants)
		Environmental management, regulatory compliance

5	Land	Details of the land
6	Mine Closure	Mine Closure Activities and Escrow Account
7	Implementation Schedule	Multi-phase (4-8 years): site prep, drilling, commissioning, ramp-up, milestones, production schedule, regulatory clearances.
9.	Plates	Geological Plan, Seam Folio plan of each seam, Plan showing mining layout, Panel projection (Proposed Gasifier), Surface layout, Land Use plan, Cross Section, Topographical plan. Conceptual plan including coordinates, lease boundary, vesting area, and working proposed thereon.