

CHAPTER-I: INTRODUCTION

1.0 Introduction

In 1957 major amendments of revolutionary nature were made in the then Mines & Mineral (Regulation & Development) Act 1957 (MMRD Act 1957) which have brought into focus the dynamic component of the Indian mineral legislation with regard to the much-needed impetus required for scientific development of mines, proper mine planning, conservation of minerals and protection of environment. Under the MMRD Act 1957, a new thrust to the mineral development activity in the country has given by the provision of the Section 5(2) (b), which requires that the application for grant of mining lease should be accompanied by a duly approved mining plan by the Central Government or by the State Government, in respect of such category of mines as may be specified by the Central Government. Thus the concept of mining plan was introduced. The basic intent behind the introduction of mining plan was to develop and regulate the Indian Mining Industry and to make them work according to a scientific document containing the broad direction of various activities of mining. Although the organized mining sector in India was already working with their indigenous strategies and working plan. However, this was the first step to bring entire mining sector in India under single umbrella with introduction of a broadly standardized document covering all the basic requirement of a scientific mining.

With the advent of time concept, format and design of Mining Plan has also undergone changes. Indian Bureau of Mines have issued from time to time various circulars regarding preparations and approval of Mining Plan keeping in tune with the then legal requirements. The last “Manual of Appraisal of Mining Plan 2014” was made applicable since November 2014. However, on 12th January 2015 amendments were notified as the Mines & Minerals (Development & Regulation) Amendment Act 2015. Subsequently Mineral Concession Rules 1960 and Mineral Conservation and Development Rules 1988 have been repealed. Further, with promulgation of new sets of rules such as Minerals (Evidence of Mineral Contents) Rules 2015 with effect from 17th April

2015;Minerals (Auction) Rules 2015 with effect from 20th May 2015;Minerals (Other than Atomic and Hydro-Carbon Energy Minerals) Concession Rule 2016 with effect from 4th March 2016; Mineral Conservation and Development Rules 2017 with effect from 27th February 2017 and other related notifications, it was necessitated to relook and re-design the templates and format of Mining Plan keeping in view the latest legal changes. Accordingly, the Controller General, Indian Bureau of Mines has formed a Committee to revise IBM Manual for Appraisal of Mining Plan. The draft prepared by the Committee has been examined and approved and thus notified for information to all stakeholders.

This Manual for Appraisal of Mining Plan is applicable to all minerals except for following minerals

- (i) Petroleum and Natural gas;
- (ii) Coal, lignite and sand for stowing;
- (iii) Atomic minerals as specified in Part B of the First Schedule to the Act where the grade of such atomic minerals is equal to or above the threshold value limits declared under Schedule-A of the Atomic Minerals Concession Rules, 2016;
- (iv) Minor minerals declared by the Central Government from time to time;

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CHAPTER-II: LEGAL PROVISIONS RELATING TO MINING PLAN

2.1 Mines & Minerals (Development & Regulation) Act 1957

The important definitions concerning “Mining Plan” as defined in Section 3 of the Mines & Minerals (Development & Regulation) Act 1957 are as given below:

(a) "leased area" means the area specified in the mining lease within which mining operations can 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;

(aa) “minerals” include all minerals except mineral oils;

(c) "mining lease" means a lease granted for the purpose of undertaking mining operations, and includes a sub-lease granted for such purpose;

(d) “mining operations” means any operations undertaken for the purpose of winning any mineral;

Clause (b) of Sub-Section (2) of Section 5 of the Mines & Minerals (Development & Regulation) Act 1957 says that no mining lease shall be granted by the State Government unless it is satisfied that there is a mining plan duly approved by the Central Government or by the State Government, in respect of such category of mines as may be specified by the Central Government, for the development of mineral deposits in the area concerned.

The primary powers of approval of Mining Plans are vested with the Central or State Government. Subsequently the Central Government under Section 26 of the MMDR Act 1957 has delegated these powers of approval of Mining Plans to the Controller General, Chief Controller of Mines, Controller of Mines and Regional Controller of Mines vide Order S.O 445 (E) dated 28.4.1987. **(Annexure -I)**

On 12th January 2015, it has been further amended to add the following proviso.

“Provided that a mining lease may be granted upon the filing of a mining plan in accordance with a system established by the State Government for preparation, certification, and monitoring of such plan, with the approval of the Central Government.”

As per Section 20A of the 12th January 2015 MMDR Amendment, the Central Government can issue directions to the State Governments, as may be required for the conservation of mineral resources, or on any policy matter in the national interest, and for the scientific and sustainable development and exploitation of mineral resources. These directions can be issued on following matters which are relevant to the preparations of Mining Plan such as:

- (i) improvement in procedure for grant of mineral concessions and to ensure co-ordination among agencies entrusted with according statutory clearances;
- (ii) maintenance of internet-based databases including development and operation of a mining tenement system;
- (iii) implementation and evaluation of sustainable development frameworks;
- (iv) reduction in waste generation and related waste management practices and promotion of recycling of materials;
- (v) minimising and mitigating adverse environmental impacts particularly in respect of ground water, air, ambient noise and land;
- (vi) ensuring minimal ecological disturbance, in terms of biodiversity, flora, fauna and habitat;
- (vii) promoting restoration and reclamation activities so as to make optimal use of mined out land for the benefit of the local communities; and
- (viii) such other matters as may be necessary for the purposes of implementations of this Act.”

The detailed procedural requirements regarding preparation of Mining Plan, contents of Mining Plan, Systems to be established by the State Governments, approval of Mining Plan and its modifications has been elaborated in the Chapter V of the Minerals (Other than Atomic and Hydro-Carbon Energy Minerals) Concession Rule 2016.

As per Mines & Minerals (Development & Regulation Amendment) Act 2016 published in Gazette of India vide gazette Notification No 25 of 2016 in Part-II, Section-I dated 09th May 2016, it has been added under sub-section 6 of section 12A that where a mining lease has been granted otherwise than through auction and where mineral from such mining lease is being used for captive purpose, such mining lease may be permitted to be transferred subject to compliance of such terms and conditions and payment of such amount or transfer charges as may be prescribed. For the purpose of this proviso, it is clarified that the expression 'used for captive purpose' shall mean the use of the entire quantity of mineral extracted from the mining lease in a manufacturing unit owned by the lessee.

2.2 Minerals (Other than Atomic and Hydro-Carbon Energy Minerals) Concession Rule 2016(In short MCR 2016)

As per Rule 2(f) of the MCR 2016, **Run-of-Mine (ROM)** has been defined as the raw unprocessed or uncrushed material in its natural state obtained after blasting or digging, from the mineralised zone of a lease area;

Preparation and Submission of Mining Plan

As per Rule 13 of MCR 2016, no mining operations can be undertaken except in accordance with a mining plan. This Mining Plan is either to be approved by any officer of the Indian Bureau of Mines duly authorised in writing by the Controller General, Indian Bureau of Mines or required to be in accordance with the system established by the State Government for preparation, certification and monitoring of the mining plan pursuant to the proviso to clause (b) of sub-section (2) of section 5 of the MM (DR) Amendment Act 2015. In both the cases, the mining plan is required to be made in accordance with a manual prepared by the Indian Bureau of Mines.

The Controller General, Indian Bureau of Mines has authorised the (1) Regional Controller of Mines &(2) Deputy Controller of Mines, in-charge of the Regional offices/Sub-Regional offices of Mineral Development and Regulation Division of Indian Bureau of Mines to exercise the power specified under Rule 16 and Rule 17 of Minerals (Other than Atomic and Hydro Carbons

Energy Minerals) Concession Rules,2016, for approval of Mining Plans.**(Annexure II).**

Further as per Rule 13(2) of MCR 2016 the Mining Plan should require to cover the following aspects.

- (a) the plan of the lease hold area showing the nature and extent of the mineral body, spot or spots where the mining operations are proposed to be based on the prospecting data gathered by the applicant or any other person;
- (b) details of the geology and lithology of the area including mineral resources and reserves of the area;
- (c) details of proposed exploration programme;
- (d) the details of mode of mining operation indicating method of excavation, drilling and blasting, handling of waste and mineral rejects, use of mineral and beneficiation of minerals, site-services, employment-potential;
- (e) environment management plan indicating baseline information, impact assessment and mitigation measures;
- (f) a tentative scheme of mining and annual programme and plan for excavation from year to year for five years;
- (g) a tentative estimate about accretion of mine waste and its manner and mode of disposal and confinement;
- (h) manner of mineral processing and mineral up-gradation, if any, including mode of tailing disposal;
- (i) a progressive mine closure plan as defined in rules made under section 18; and
- (j) any other matter which the Central Government or the Indian Bureau of Mines may require the applicant to provide in the mining plan.

System to be established by the State Government

As per Rule 14 of MCR 2016, where any State Government wish to establish their own system of Mining Plan, the proposed system to be established by the State Government for preparation, certification and monitoring of the mining plan is required to be submitted to the Central Government for seeking its previous approval. The Central Government is required to dispose of, with or without modifications, the proposal received from the State Government for approval of the system within a period of six

months from the date of receipt of such a proposal. Any modification of the system is also requires prior approval by the Central Government. The Central Government can revoke such approval for reasons to be recorded in writing and duly communicated to the State Government. Further, the Central Government has to periodically review the system established by the State Government at least every five years.

Preparation of Mining Plan

As per Rule 15 of MCR 2016, every mining plan or modifications in the Mining Plan is required to be prepared by a person having the following qualifications and experience:

- (a) a degree in mining engineering or a post-graduate degree in geology granted by a university established or incorporated by or under a Central Act, a Provincial Act or a State Act, including any institutions recognised by the University Grants Commission under section 4 of the University Grants Commission Act, 1956 (3 of 1956) or any equivalent qualification granted by any university or institution outside India and recognised by Government of India; and
- (b) professional experience of five years of working in a supervisory capacity in the field of mining after obtaining the degree.

Procedure for Approval of Mining Plan

As per Rule 16 (2) of MCR 2016, every Mining Plan submitted for approval is required to be accompanied by such fee as may be specified by the Indian Bureau of Mines.

The Controller General, IBM vide notification published in the Gazette of India Extra ordinary Part II Section (3) sub-section (ii) vide S.O.1856 (E) dated 23May 2017 has specified the non-refundable processing fee of Rs. 25000/- (Rupees Twenty Five Thousand only) per Sq. Km. or part thereof for Mining Plan document submitted to the Indian Bureau of Mines for approval. **(Annexure III).**

Additionally as per Rule 16 (3) of MCR 2016, the Indian Bureau of Mines is required to dispose of the application for approval of the mining plan within a period of ninety days from the date of receiving of such application. However, the aforesaid period of ninety days is applicable only if the mining plan is complete in all respects, and in case of any modifications subsequently suggested by the Indian Bureau of Mines after the initial submission of the mining plan for approval, the said period will be applicable from the date on which such modifications are carried out and submitted afresh to the approving authority of Indian Bureau of Mines. The approving authority of the mining plan can by an order in writing, at any time direct modification of the mining plan or impose such conditions in the mining plan as it may consider necessary.

Review and Modifications of Mining Plan

Rule 17(1)& (2) of MCR 2016 specifies that the mining plan once approved is subject to review and updation at an interval of every five years starting from the date of execution of the duly executed mining lease deed. The Review and Mining Plan for mining operations for a period of five subsequent years is required to be submitted to the approving authority at least one hundred eighty days before the expiry of every five years period specified.

Rule 17(3) of MCR 2016 provides that a holder of a mining lease can seek modifications in the approved mining plan as are considered expedient, keeping in view changes in the business environment, or for facilitating increase in production capacity, or in the interest of safe and scientific mining, conservation of minerals, for the protection of environment; or any other reason to be specified in writing by the holder of a mining lease. Any modification to a mining plan shall be approved by the approving authority that approved the initial mining plan.

2.3 The Minerals (Evidence of Mineral Contents) Rules, 2015. (In short MEMC Rules 2015)

The relevant provisions of the MEMC Rules 2015 regarding examination and processing of Mining Plan are summarised below:

Rule 3 (e) defined as “**threshold value of minerals**” means the limits prescribed by the Indian Bureau of Mines from time to time based on the beneficiability and marketability of a mineral for a given region and given time, below which the material obtained after mining can be discarded as waste.

Different Rules and sub-Rules of MEMC Rule 2016 provide the following provisions for establishment of mineral content.

Rule	Condition/Scenario	Deemed to have established existence of mineral contents if :
4(1)	Where an application for grant of prospecting licence or mining lease to a holder of a reconnaissance permit or prospecting licence, as the case may be, has not been submitted before the 12th January, 2015,	In the case of grant of prospecting licence (i) carried out Reconnaissance Survey (G4) to establish anomalous zones (areas) worthy of further exploration; and (ii) prepared a geological study report conforming to Part IV of the Schedule and such geological study report has been submitted to the State Government;
		In the case of grant of mining lease (i) carried out at least General Exploration (G2 level) over the area to establish Indicated Mineral Resource (332); and (ii) prepared at least a Pre-Feasibility Study (F2) report to establish Probable Mineral Reserve (121 and 122) conforming to Part V of the Schedule, to plan mining operation for a period of five years from the date of commencement of the mining lease, and such report has been submitted to the State Government.
4(2)	Where an application for grant of prospecting licence or mining lease to a holder of a reconnaissance permit or prospecting licence, as the case may be, has been submitted before the 12th January, 2015	In the case of grant of prospecting licence (i) carried out reconnaissance operations as per Scheme of Reconnaissance under Mineral Conservation and Development Rules, 1988; and (ii) submitted report to the State Government, after completing reconnaissance operations, in conformity with such Scheme of Reconnaissance and satisfying the conditions laid down in the guidelines for processing Mineral Concession proposals issued by the Central Government in the Ministry of Mines dated

		24th June, 2009 and 30th October, 2014; In the case of grant of mining lease (i) carried out prospecting operations as per Scheme of Prospecting under Mineral Conservation and Development Rules, 1988; and (ii) submitted report to the State Government, after completing prospecting operations, in conformity with such Scheme of Prospecting and satisfying the conditions laid down in the guidelines for processing Mineral Concession proposals issued by the Central Government in the Ministry of Mines dated 24th June, 2009 and 30th October, 2014.
5	Existence of mineral contents for auction of mining lease	(a) at least General Exploration (G2) has been completed to establish Indicated Mineral Resource (332); and (b) a geological study report has been prepared conforming to Part IV of the Schedule.
6	Grant of a mining lease through auction in respect of mining leases after expiry of the mining lease period and of leases which have been surrendered, determined or lapsed.	Before notifying any area for grant of mining lease through auction, a detailed reassessment of resources, in the area proposed to be auctioned shall be carried out in accordance with rule 5.
7(2)	Existence of mineral contents for grant of Mining Lease through composite licence	(a) at least General Exploration (G2) has been completed to establish Indicated Mineral Resource (332); and (b) at least a Pre-Feasibility Study (F2) report has been prepared to establish Probable Mineral Reserve (121 and 122) conforming to Part V of the Schedule, to plan mining operation for a period of five years from the date of commencement of mining lease and such report has been submitted to the State Government.

Rule 8 defines 'Relaxation' in the exploration norms as specified in Part-III of the Schedule, in whole or part for any mineral or any area depending upon the geological setup, mode of occurrence and nature of mineralisation. Such relaxation may be accorded by the

concerned State Government with the previous approval of the Central Government.

2.4 Minerals (Auction) Rules 2015

As per Rule 10 (3) (d) of the Mineral (Auction) Rule 2015, the preferred bidder can become the “successful bidder” only upon satisfying the conditions specified in clause (b) of sub-section (2) of section 5 with respect to a mining plan and such other conditions mentioned therein. Therefore, the approval of Mining Plan by IBM or submission of Mining Plan as per System established by the State Government is mandatory before grant of Mining Lease.

Further, as per Rule 22 of the Mineral (Auction) Rule 2015, the holder of a mining lease is required to complete detailed exploration (G1 level exploration) and to prepare a detailed feasibility study report conforming to Part IV and V of the Mineral (Evidence of Mineral Contents) Rules, 2015 over the entire area under the mining lease, within a period of five years from the date of commencement of mining lease.

The ‘Date of Commencement of Mining Lease’ has been defined under Rule 10(9) of Mineral (Auction) Rules’2015 as the date on which duly executed Mining Lease Deed is registered.

2.5 Mineral Conservation and Development Rules 2017

(In short MCDR 2017)

The following provisions of MCDR 2017 as enumerated below are relevant to the “Mining Plan”.

As provided in Rule 3 of MCDR 2017, the following definitions have been specified which are relevant for the preparation and appraisal of Mining Plan:

3(a) **“abandonment of mine”** means the final closure of a mine, either whole or part thereof, when the mineral deposits within the mine or part thereof have been fully extracted or when the mining operations thereon have become uneconomic;

(c) **“authorised officer”** means– (i) an officer of the Indian Bureau of Mines duly authorised in writing by the Controller General, Indian Bureau of Mines; or (ii) an officer authorised in this behalf

by the State Government to perform the functions under these rules; or (iii) an officer of the Atomic Minerals Directorate for Exploration and Research authorised in writing by the Director, Atomic Minerals Directorate for Exploration and Research, to perform the functions under these rules in respect of minerals specified in Part B of the First Schedule to the Act where the grade of such atomic minerals is equal to or above the threshold value limits declared under Schedule-A of the Atomic Minerals Concession Rules, 2016;

(d) “**beneficiation**” means processing of minerals or ores for the purpose of upgrading the quality, purity or assay grade of the desired product by removing unwanted constituents like gangue minerals or tailings;

(e) “**calibrated lump ore**” means the sized ore that is obtained after screening or crushing of the run-of-mine ore;

(g) “**competent authority**” means the competent authority referred to in rule 10 of MCDR 2017;

(j) “**cores**” means the samples of sub-surface rocks or mineralised zone obtained during drilling of boreholes;

(k) “**development**” means the driving of an opening to or in an ore-body or seam or removing overburden or unproductive or waste materials as preparatory to mining or stoping;

(l) “**environment**” and “environmental pollution” shall have the same meanings as assigned respectively to them in the Environment (Protection) Act, 1986 (29 of 1986);

(m) “**final mine closure plan**” means a plan for the purpose of decommissioning, reclamation and rehabilitation of a mine or part thereof after cessation of mining and mineral processing operations, that has been prepared in the manner specified in the standard format and guidelines issued by the Indian Bureau of Mines or the Director, Atomic Minerals Directorate for Exploration and Research in respect of minerals specified in Part B of the First Schedule to the Act where the grade of such atomic minerals is equal to or above the threshold value limits declared under Schedule-A of the Atomic Minerals Concession Rules, 2016;

(n) “**final mine closure**” means steps taken for reclamation and

rehabilitation of a mine or part thereof commencing from cessation of mining or processing operations in a mine or part thereof;

(o) **“financial assurance”** means the security or guarantee furnished by the holder of a mining lease in accordance with rule 27 of the MCDR 2017;

(s) **“mineral rejects”** include all the excavated materials that do not constitute useful material, which may be rejected either on the basis of grade or size;

(t) **“progressive mine closure plan”** means a progressive plan for the purpose of providing protective, reclamation and rehabilitation measures in a mine or part thereof that has been prepared in the manner specified in the standard format and guidelines issued by Indian Bureau of Mines or the Director, Atomic Minerals Directorate for Exploration and Research in respect of minerals specified in Part B of the First Schedule to the Act where the grade of such atomic minerals is equal to or above the threshold value limits declared under Schedule-A of the Atomic Minerals Concession Rules, 2016, from time to time;

(x) **“shaft”** means a vertical or inclined way or opening leading from the surface to workings below ground or from one part of the workings below ground to another and includes an incline;

(y) **“stoping”** means making any underground excavation other than development working made for the purpose of winning ores or minerals and includes extraction or splitting or reduction of pillars or blocks of minerals;

Rule 10 of MCDR 2017 specifies that **“Competent Authority”** means (1) The Controller General or an officer of Indian Bureau of Mines authorised in writing by the Controller General shall be the competent authority to take decisions with respect to a mining plan approved by any officer of the Indian Bureau of Mines, pursuant to clause (b) of sub-section (2) of section 5.

The State Government shall be the competent authority to approve a mining plan required for grant of a mining lease, prepared and certified in accordance with the system established by the State Government pursuant to the proviso to clause (b) of sub-section (2) of section 5 and approved by the Central Government:

It is further provided that the Controller General or an officer of Indian Bureau of Mines authorised in writing by the Controller General shall be the competent authority to take decisions with respect to monitoring and implementation of such mining plans approved by the State Government.

The 'Competent Authority' and 'Authorized Officer' have been notified vide No. T-43010/CGBM/2014 published in the Gazette of India on 31/05/2017 (Annexure-IV).

Mining Operations as per Mining Plan

Rule 11 (1) of MCDR 2017 specifies that no holder of a mining lease shall commence or carry out mining operations in any area except in accordance with the mining plan approved, modified or reviewed by the Indian Bureau of Mines or prepared and certified in accordance with the system established by the State Government pursuant to the proviso to clause (b) of sub-section (2) of section 5.

Rule 11(2) of MCDR 2017 further specifies that if the mining operations are not carried out in accordance with the approved or certified mining plan or any information contained in the mining plan is found to be incorrect, misleading or non-compliant with applicable laws including MCDR 2017, the competent authority may by order, suspend all or any of the mining operations and permit continuance of only such operations as are required to restore the conditions in the mine as envisaged under the approved or certified mining plan or modified mining plan, for the purpose of restoration to the extent possible:

However, the rule provides that before initiating such action, the lessee shall be informed in writing about the violation and if the violation is not rectified within a period of forty-five days, a show cause notice shall be issued asking reasons why the mining operations should not be suspended and, further, if no satisfactory reply is received within a period of thirty days, the mining operations can be suspended:

The competent authority can revoke the suspension after compliance by rectifying the violation pointed out in this regard.

As provided in sub-rule (1) of rule 17 of the Minerals (Other than Atomic and Hydro Carbon Energy Minerals) Concession

Rules, 2016, Rule 11(3) of MCDR 2017 also provides that every approved mining plan shall be subjected to review and updation in every five years. As provided in sub-Rule (4) of Rule 11 of MCDR 2017, the holder of a mining lease is required to submit the mining plan to the competent authority for review at least one hundred and eighty days before the expiry of five years period for which it was approved on the last occasion, for mining operations for a period of five subsequent years.

Exploration in the existing lease areas

As per rule 12 (3) & (4), detailed exploration (G1 level) over the entire potentially mineralised area under the mining lease shall be carried out within a period of five years, from the date of opening of the mine after execution of mining lease in case of fresh grant mining leases and within a period of five years from the date of commencement of MCDR 2017 in case of all existing leases respectively.

Mine Closure Plan

As per Rule 22(1) of MCDR 2017, every mine shall have two types of Mine Closure Plan namely:

- (i) Progressive Mine Closure Plan; (PMCP) and
- (ii) Final Mine Closure Plan. (FMCP)

These mine closure plans are required to be prepared as per the guidelines and format given by the Indian Bureau of Mines from time to time:

As per Rule 23 of MCDR 2017, a progressive mine closure plan is required to be submitted by the holder of a mining lease to the competent authority as a component of the mining plan, at the time of submission, modification and review of the mining plan. Rule 24 of MCDR provides that the mining lease holder is required to submit a final mine closure plan to the competent authority for approval two years prior to the proposed closure of the mine. Further, the competent authority is required to convey his approval or refusal of the final mine closure plan within ninety days of the date of its receipt to the holder of the mining lease. Rule 25 of MCDR 2017 allows for modifications in the mine closure plan. In this case the lease holder desirous of seeking modifications in the approved mine closure plan, is required to

submit to the competent authority for approval setting forth the intended modifications and explaining the reasons for such modifications. The competent authority may approve the modifications or approve with such alterations as he may consider expedient. As enumerated in Rule 26 of MCDR 2017 it is the responsibility of holder of a mining lease to ensure that the protective measures including reclamation and rehabilitation works have been carried out in accordance with the approved mine closure plan or with such modifications as approved by the competent authority. Further the holder of a mining lease is required to submit to the competent authority a yearly report as per the format specified by the Indian Bureau of Mines, before 1st day of July every year setting forth the extent of protective and rehabilitative works carried out as envisaged in the approved mine closure plan, and if there is any deviation, reasons thereof.

Financial Assurance

Financial Assurance is required to be submitted by every leaseholder except in case where mining lease is granted through the auction or the mining lease granted under the provisions of clause (b) or clause (c) of sub-section (2) of section 10A, wherein the Mine Development and Production Agreement has been signed between the lessee and the State Government.

As specified in Rule 27(1) of MCDR 2017 the financial assurance is applicable as follows:

Category of Mine	Amount in Rs.	Minimum amount of financial assurance
'A'	An amount of Rs. 3.0 lakh per hectare of the mining lease area put to use for mining and allied activities:	Rs. 10.0 Lakh
'B'	An amount of Rs. 2.0 lakh per hectare of the mining lease area put to use for mining and allied activities:	Rs. 5.00 Lakh

Rule 27(2) of MCDR 2017 provides that financial assurance is required to be submitted to the authorised officer in the form of a

bank guarantee in the format specified by the Indian Bureau of Mines.

In case of existing mines where financial assurance has already been furnished before the commencement of MCDR 2017, an amount equal to the difference between the financial assurance due as on the date of notification of MCDR 2017 and the financial assurance already furnished, is required to be furnished to the authorised officer within a period of ninety days from the date of notification of these rules. viz. before 28th May 2017.

MCDR 2017 also provides that where a leaseholder has undertaken reclamation and rehabilitation measures as part of the progressive closure of mine, the amount so spent shall be reckoned as sum of the financial assurance already spent by the leaseholder and the total amount of financial assurance, to be furnished by the lessee has to be reduced to that extent.

As per the above provision, while considering net area for calculation of financial assurance required to be submitted, area which has already been reclaimed and rehabilitated and which can be verified through inspection should be deducted from the total degraded area.

Forfeiting of Financial Assurance

Rule 27(3) of MCDR 2017 provides that release of financial assurance shall be effective upon the notice given by the lessee for the satisfactory compliance of the provisions contained in the final mine closure plan and certified by the authorised officer, as the case may be. However, as per Rule 27(4) of MCDR 2017, if the authorised officer, has reasonable grounds for believing that the protective, reclamation and rehabilitation measures as envisaged in the progressive mine closure plan contained in the approved mining plan or the final mine closure plan, in respect of which financial assurance was furnished, has not been or will not be carried out in accordance with the mining plan or the final mine closure plan, either fully or partially, the authorised officer, shall give the lessee a written notice of his intention to issue the orders for forfeiting the sum assured at least thirty days prior to the date of the order to be issued. If no satisfactory reply has been received in writing from the lessee, the authorised officer, shall pass an order for forfeiting the surety amount and a copy of such order

shall be endorsed to the concerned State Government. Upon issuance of order by the authorised officer, the concerned State Government has to realise the bank guarantee provided or obtained as financial assurance for the purpose of performance of protective, reclamation, rehabilitation measures and shall carry out those measures, or appoint an agent to do so.

General Requirements of Plans and Sections

As per Rule 31 of MCDR 2017, every plan or section must comply the following requirements:

- (a) show the name of the mine and of the holder of the mining lease and the purpose for which the plan or section is prepared;
- (b) show the true north or the magnetic meridian and the date of the letter;
- (c) show a scale of the plan at least twenty-five centimetres long and suitably sub-divided;
- (d) unless otherwise provided, be on a scale having a representative factor of –
 - (i) 1:500 in case of mines having small-scale workings;
 - (ii) 1:2000 in case of mines having large open cast working and also in case of surface plans of large leasehold areas;
 - (iii) 1:1000 in other cases:Provided that the competent authority may, by an order in writing and subject to such conditions as he may specify therein, permit or require the plans to be prepared on any other suitable scale;
- (e) be digitally prepared in the format as may be specified by the Indian Bureau of Mines.

The conventions provided under the Metalliferous Mines Regulations, 1961, shall be used in preparing all plans and sections required under these rules. The plans and sections shall be accurate within such limits of error as the Controller General may specify by a general or special order.

The plans and sections required under MCDR 2017 are to be maintained up to date within three months in case of category 'A' mines and within twelve months in the case of any other mine.

Types of Plans and Sections

As per Rule 32 of MCDR 2017, the holder of a mining lease is required to keep the following digitally prepared plans and sections, namely:–

(a) **Surface Plan** showing location and number of the boundary pillars along with its latitude and longitude values, every surface feature within the mining lease boundaries, such as building, telephone, power transmission line, water pipeline, tramline, railway, road, river, water-course, reservoir, tank, bore-hole, shaft and incline opening, opencast working, dumps and dumping ground, the waste land, forest, sanctuaries, agricultural land and grazing land and subsidence on the surface beneficiation plants, tailing ponds and other workings within the lease;

(b) **Surface Geological Plan** of the area of leasehold showing- (i) all the lithological units exposed in the area, in the pits, trenches and in any other openings made for prospecting and mining operations showing contact between lithological units;(ii) structural details like strike, dip, fold, fault, plunge of ore body; (iii) location of prospecting pits, trenches, boreholes and any other openings made for prospecting or mining operations; (iv) existing mine workings, dumps, stacks of ore; (v) section lines at regular intervals from one boundary to the other of the lease; (vi) contour at not more than ten metres interval; (vii) exploration limits such as G1, G2, G3 and G4 as per the United Nations Framework Classification;

(c) **Transverse section** or sections of the workings through the shaft or shafts and main adits indicating clearly the strike and dip of the vein, lode, reef, mineral bed or deposit at different points, and such sections of the strata sunk or driven through in the mine or proved by boreholes, as may be available;

(d) **Longitudinal mine section** or sections showing a vertical projection of the mine workings including outlines of all stoped out areas, where a reef, vein, lode or mineral bed or deposit or part thereof has dip exceeding thirty degrees from the horizontal plane:

(e) **Underground plan**, applicable for underground mines, showing- (i) the position of the workings of the mine below ground; (ii) every borehole and shaft (with depth), drive, cross-cut, winze,

raise, excavation (stoped ground) and every tunnel and air passage connected therewith; (iii) every pillar or block of mineral left for the support of any structure on the surface; and underground magazines, if any; (iv) the general strike of the veins, lodes, reefs and mineral beds or deposits; (v) the position of every dyke, fault and other geological disturbance with the amount and direction of throw.

Further as per Rule 32(5) of MCDR 2017, the holder of a mining lease is also require to keep the following plans:

(a) **Key plan** on a scale of 1: 50,000 incorporating:

i. an administrative surface map showing the boundary of the mining lease, and the adjoining area lying preferably within five kilometres thereof; ii. contours at not more than twenty meters intervals; iii. natural drainage system such as rivers, streams, nalahs, water reservoirs, ponds, lakes, irrigation dams and canals; iv. roadways and railways; v. places of historical and archaeological importance, monuments, places of worship, pilgrimage and of tourist interest; vi. forests with tree density, sanctuaries, wastelands, agricultural lands, grazing lands; vii. boundaries of all villages and towns with their population; viii. predominant wind direction; ix. any other relevant features:

(b) **An Environment plan** of the area of mining lease inclusive of the adjoining area within five hundred meters of the boundary of a lease area on 1: 5000 scale incorporating :

(i) an administrative surface map showing the boundary of the mining lease; (ii) contour lines at five meters intervals; (iii) all features indicated in sub-clauses (iii) to (viii) of clause (a) above; (iv) area occupied by mine workings, area deforested, area covered by dump with the height of the dump, processing plant, surface building, workshop, mining township; (v) area reclaimed and area afforested, location of protective barriers, check dams erected to contain solid and liquid effluents generated by prospecting, mining, beneficiation or metallurgical operations carried out in the mine; (vi) all pumping stations and the courses of discharge of mine water; (vii) any other relevant features:

Provided that the particulars with regard to items (ii), (iv) and (v) shall be applicable only up to sixty meters beyond the

boundary of lease area.

Category of Mines

As per Rule 55(2) of MCDR 2017,

Category 'A' mines means– (i) such fully mechanised mines where the work is being carried out by deployment of heavy mining machinery for deep hole drilling, excavation, loading and transport; or (ii) such mines where the number of average employment exceeds one hundred and fifty in all or seventy-five workings below ground, or mines where any of the mining operations like deep hole drilling, excavation, loading and transport is carried out with the help of heavy machinery;

Category 'B' mines means mines other than category 'A' mines:

The expression “average employment” means the average per day of the total employment of the mine during the preceding quarter (obtained by dividing the number of man days worked by the number of working days).

2.6 Minerals (Transfer of Mining Lease Granted Otherwise than through Auction for Captive Purpose) Rules, 2016.

As per these Rules, mining lease granted otherwise than through auction which is being used for captive purpose can be transferred by the State Government. After effecting the transfer of mining lease by the State Government, the Mining Plan approved in favour of earlier leaseholder can be transferred in favour of new mining lease holder.

2.7 While processing of the Mining Plan submitted by the Government companies, provisions of Mineral (Mining by Government Company) Rules, 2015 published in the gazette of India vide notification no G.S.R. 927(E), dated 3rd December 2015 may be referred.

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CHAPTER-III: PROCESSING AND EXAMINATION OF MINING PLANS-PROCEDURAL ASPECTS

3.1 General

As indicated in the preceding Chapter it is obligatory on the part of applicant to submit an approved mining plan before execution of mining lease and mining lessee has to review Mining Plan at an every interval of five years period from the date of execution of mining lease deed. In respect of Mining Plans submitted for processing in IBM the procedure as enumerated below should be followed.

3.1.1 IBM shall process mining plan of only those minerals to which Minerals (Other than Atomic and Hydro-Carbon Energy Minerals) Concession Rule 2016 are applicable. As per the Ministry of Mines letter no. 16/106/2015-M.IV dated 12/07/2017 (copy enclosed as Annexure-V), IBM has been authorized to approve Mining Plans of mining leases wherein minor minerals co-exist with the major mineral until further orders. Apart from this, IBM shall also continue to approve the mining plans of mining leases of newly notified 31 minor minerals for a further period of two years up to 25/05/2019. Therefore, the mining plans for the leases wherein minor minerals co-exist with the major minerals, complete document should be prepared for both the minerals and the same should be submitted to IBM for processing/approval. In case of mining leases of newly notified 31 minor minerals, mining plans shall be accepted only if the concerned state government has amended their Minor Mineral Rules accordingly to authorize IBM for approval.

3.1.2 The mining plan shall be prepared by the Qualified Person (QP) by following Format at **Chapter V**.

3.1.3 The mining plan should be prepared in the format specified in chapter V based on the category of the mine (A or B). Suitable information should be mentioned under each item of the format and wherever no such information is applicable based on the category of the mine; the same should be clearly mentioned.

3.1.4 As per sub-Rule (1) of Rule 15 of the Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016, every mining plan is require to be prepared by a person having qualifications and experience as indicated in clause (a) and (b) of the said Rule. In view of the aforesaid provision the Qualified Person(s) who has prepared the Mining Plan shall submit the credential to satisfy the provisions of Rule 15(1) of Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016. Such credentials should be enclosed with the Mining Plan document as annexure.

3.1.5 There should be minimum interface between the lessee /lease holder/person qualified to prepare a mining plan and the Regional/Sub Regional office. The soft copy of the mining plan in pdf format is to be sent by e-mail in the official mail id of concerned Regional/Sub Regional office. If the mining lease holder is unable to send the soft copies through e-mail, he may send the soft copy of draft mining plan saved in compact disc properly labelled with the name of the document/lease. The soft copy of the draft Mining Plan should be followed by hard copies. The hard copy of the Mining Plan along with the processing fee by Demand Draft is to be sent to the concerned Regional office as far as possible through post/courier. If the lessee/representative wants to submit Mining Plan in person he may deposit the same in receipt section. The processing fee for the mining plan is to be accepted only through the Demand Draft till the electronic payment gateway is established.

3.1.6 The first submission of mining plan should be accompanied by a forwarding letter duly signed legibly with name and date by the applicant/mining lease holder. In case of a company/partnership firm, the same should be signed by the nominated owner of the company or ManagingPartner of the firm respectively.

3.1.7 As per Rule 16 (2) of MCR 2016, every Mining Plan submitted for approval is required to be accompanied by such fee as may be specified by the Indian Bureau of Mines. The fee has been prescribed by the Controller General, IBM vide S.O. 1856 (E)dated 18th May 2016 and it is applicable to those Mining Plans

submitted after 23rd May 2016, the date of its publications in the official gazette. **(Annexure III)**. Presently the processing fee prescribed is Rs. 25,000/- (Rupees Twenty Five Thousand only) per Sq. Km. or part thereof. (Rs. 25,000/- per 100 Ha or part thereof). The processing fees shall be submitted to IBM along with draft mining plan with Demand Draft drawn in favour of 'Drawing and Disbursing Officer, Indian Bureau of Mines, ----- (in the respective Jurisdictional Regional office where it is submitted) payable at that place.

3.1.8 The Regional office shall issue a receipt of mining plan to the party in the proforma given in **Annexure VI**.

3.1.9 Although as specified in the Minerals (Other than Atomic and Hydro-carbon Energy Minerals) Rules 2016, the time limit for disposal of Mining Plan/Modifications in Mining Plan/Review of Mining Plan is 90 days, in order to have transparent and expeditious disposal, a time limit of 45 days should be followed in the greater public interest as per the instruction issued in this regard (Annexure-VII). In case the disposal is not possible within 45 days for administrative and technical reasons, the same should be recorded by the concerned Regional Office justifying the delay.

3.1.10 The 'zero' date of the processing of Mining Plan will start from the date of receipt of first submission of hard copy of Mining Plan and Demand Draft of requisite amount for processing fee in the concerned Regional office of IBM.

3.1.11 Soon after zero date, the soft copy of the first submission of mining plan it is to be forwarded to the concerned State Governments for their comments giving them fifteen (15) days-time period for any comments. In the forwarding letter it should be made clear that if no comments are received within 15 days, it would be presumed that State has no comments to offer and has no objection to approve the document.

3.1.12 Soon after zero date, RCOM or DCOM (I/C) should mark the document to the inspecting officer(s) as per the timeline specified in Annexure-VII. If RCOM or DCOM (I/C) of the

concerned region is on leave / tour then the next higher officer will mark the mining plan for its processing in consultation with RCOM or DCOM (I/c). Document is not to be kept in pending state awaiting the joining of RCOM or DCOM (I/c). The marking of the document should be acknowledged in the file by the concerned inspecting officer immediately after receipt.

3.1.13 For mining plan submitted for fresh grant of ML site inspection is compulsory. In cases of highly disturbed areas from law and order point of view the exemption from site inspection to be sought from the Chief Controller of Mines. In case of Review of mining plan, where the mine has been inspected within past six months the inspection may be dispensed subject to the marking of the Mining Plan to the same inspecting officer depending on the complexity of the deposit and mining operations. All fully mechanized mining proposals may be scrutinized and inspected jointly by a Mining Engineer and Geologist as far as possible.

3.1.14 The mining plan for fresh grant cases shall be approved only after site inspection is carried out as per 3.1.13 along with Qualified Person (QP). In case of Review of Mining Plan or modifications in the Mining Plan, the inspecting officer shall ensure the presence of boundary pillars in the mining lease area especially near the working zones and corner pillars to the extent possible and also if boundary pillars are not seen the same should be brought to the immediate notice of the State government by a separate letter. Demarcation of the precise area should be checked in the field by the Inspecting officer through the Authenticated Cadastral Map (originally authenticated by the State Government)/ DGPS Cadastral Plan prepared as per CCOM Circular 2/2010 (Annexure-VIII) and authenticated by the State Government / boundary pillars co-ordinates as provided by the State Government, if any.

3.1.15 Concerned inspecting officers would carry out the site inspection and will submit its scrutiny comments, within a period of 15 days from the date of marking. Thereafter, the Regional Controller of Mines or the DCOM (I/c) should approve/communicate to the lessee on the scrutiny comments within 4 days.

3.1.16 The mining plans should be scrutinized strictly with regard to their adequacy in respect of mineral conservation, scientific and systematic mining and environment management as the essential purpose to the maximum extent practicable.

3.1.17 The scrutiny comments are to be issued to the applicant along with copy to the concerned qualified person through e-mail giving them 15 days-time to submit the final copies. Applicant/Lease holder/Qualified person is to attend the scrutiny comments and the final hard copies of the mining plan after attending the scrutiny comments are to be submitted to the concerned regional office preferably by post/courier within stipulated time. Every hard copy of the final document should be accompanied by a covering letter from QP indicating the compliance of the deficiencies observed and communicated through the scrutiny letter & soft copy in compact disc saved in pdf format. The CD's submitted should be verified for the contents and should be preferably preserved for any future references.

3.1.18 All scrutiny points/clarifications from the applicant/lessee shall be sought in one go unless such scrutiny points/clarification is required afresh consequent to submission of modified mining plan.

3.1.19 If the modified final copies of the mining plan are not received after issue of scrutiny within the stipulated time frame, then it will be liable for rejection. Approval / disapproval letter is to be sent by e-mail followed by dispatch of hard approved copies by post.

3.1.20 In case of first submission, if the Mining Plan document is found incomplete, it shall be liable for rejection outrightly without any further processing. Such rejection should not be done after a period of one week from the zero date. After one week period, no disapproval should be done on technical grounds without site inspection. After such rejection on technical grounds, no document for the same lease area shall be accepted within a period of fifteen days from the date of rejection.

3.1.21 Mining Plans for fresh grant of mining lease maybe through RP &PLroute or PL route or Direct ML. If it is through RP &PL or PL route, the adequacy of exploration in the RP/PL report in terms of MEMC Rules'2015 and compliance of MCDR'2017of the RP/PL shall be verified.

3.1.22 In case of Review of Mining Plans or Modifications in the Mining Plan, concerned office records should also be consulted, especially to check compliance of violations/ suggestions regarding exploration, environment protection measures etc.

3.1.23. After approval, the concerned Regional office shall issue the copiesby post in following manner:

- i) One copy for use of regional office along with one soft copy.
- ii) One copy to the concerned DGM of the state with soft copy; and
- iii) One copy to the applicant/lessee with soft copy;

3.1.24 In case of Review of Mining Plan and Modifications to a mining plan, the procedure enumerated above shall apply *mutatis mutandis*.

3.1.25 In case of Modifications in the approved mining planentire documents needs to be modified.

3.1.26. The approval/ rejection of mining plan/Review of Mining Plan/Modifications in Mining Plan should preferably be on the prescribed format. However, case/site specific conditions as applicable may be incorporated wherever necessary. **(Annexure IX to XII)**

3.1.27 Copies of correspondence with respect to scrutiny letter and approval/rejection letter with the applicant/lessee concerning processing of Mining Plan/Review of Mining Plan/Modifications in Mining Plan should be endorsed to the concerned COM for information.

3.1.28 Any proposal (including enhancement in production in the Modification of Mining plan) shall be considered prospectively for approval.

3.1.29 In case of Mining Plan of mining lease whose lease is expiring on 31st March 2020, it should be ensured that mining proposals are scientific in nature by ensuring that stripping ratio (ore to overburden ratio) is not changed exorbitantly.

3.1.30 The Mining plan approval should be limited to the lease area. As per Mines and Minerals (Development and Regulation) Amendment Act, 2016, "leased area" means the area specified in the mining lease within which mining operations can be undertaken and includes the non-mineralised area required and approved for the activities falling under the definition of mine as referred in the Mines Act 1952.

As per Mines Act 1952, the "Mine" has been defined as any excavation where any operation for the purpose of searching for or obtaining Minerals has been or is being carried on and includes-

(i) all borings, bore holes, oil wells and accessory crude conditioning plants including the pipe conveying mineral oil within the oil fields;

(ii) all shafts, in or adjacent to and belonging to a mine, whether in the course of being sunk or not;

(iii) all levels and inclined planes in the course of being driven;

(iv) all open cast workings*;

**"open cast working" means a quarry, that is to say, on excavation where any operation for the purpose of searching for or obtaining minerals has been or is being carried on, not being a shaft or an excavation which extends below surface adjacent ground;*

(v) all conveyors or aerial ropeways provided for the bringing into or removal from a mine of Minerals or other articles or for the removal of refuse therefrom;

(vi) all adits, levels, planes, machinery, works, railways, tramways and sidings in or adjacent to and belonging to a mine;

(vii) all protective works being carried out in or adjacent to a mine;

(viii) all workshops and stores situated within the precincts of a mine and under the same Management and used primarily for the

purposes connected with the mine or a number of mines under the same management;

(ix) all power stations, transformer sub-stations, convertor stations, rectifier stations and accumulator, storage stations for supplying electricity solely or mainly for the purpose of working the mine or a number of mines under the same management;

(x) any premises for the time being used for depositing sand or other material for use in a mine or for depositing refuse from a mine or in which any operations in connection with such sand, refuse or other material is being carried on, being premises exclusively occupied by the owner of the mine;

(xi) any premises in or adjacent to and belonging to a mine on which any process ancillary to the getting dressing or preparation for sale of minerals or of coke is being carried on;]

In view of the aforesaid clarifications, IBM may approve the proposals given in the Mining Plan document for the leased area granted in terms of Mines and Minerals (Development and Regulation) Amendment Act, 2016.

3.1.31 Rule 17 of MCR 2016 specifies that the mining plan once approved is subject to review and updation at an interval of every five years starting from the date of execution of the duly executed mining lease deed and “Year” has been defined under MCDR’2017 as the twelve months period beginning from the 1st day of April and ending on the 31st day of March of the following year. Therefore, first year of the Mining Plan document (fresh grant cases) shall be the financial year in which the ML is executed.

3.1.32 In case of Mining Plan for fresh grant of Mining Lease the year should be indicated as 1st Year, 2nd/ 3rd /4th/5thYear etc. However in case of Review of Mining Plan/Modifications in the approved Mining Plan, actual period should be indicated.

3.1.33 All plans and Sections of the Mining Plans shall be prepared on a computerized output using commonly available software such as AutoCAD. Ammonia prints and Xerox shall not be accepted.

3.1.34 The cover page of the Mining Plan shall give information as indicated in the Model cover page of Chapter V. Similarly, each Mining Plan should give Summary of Proposals at a Glance as indicated in Chapter V.

3.1.35 The approving authority should sign the document at following pages/plates:-

- (i) The page indicating Summary of Proposals at a Glance.
- (ii) The first page of the Mining Plan document.
- (iii) The pages where the reserve and excavation proposals of ROM is indicated.
- (iii) The last page of Mining Plan document having Financial Assurance table.
- (iv) Year-wise Development and Production Plans.

Further every page of the Text, Annexures and Plates shall be stamped.

After introduction of self-certification system in compliance of the MMDR (Amendment) Act 2015, document needs to be certified by the applicant/leaseholder and in that case only approval letter to be signed by the approving authority.

3.1.36 All the plates should bear the legible signature with name of the Qualified person preparing the document, certifying that the contents of the plates are correct to the best of his knowledge. All plates should also bear the reference of the authenticated cadastral plan based on which the plates have been prepared.

3.1.37 All circulars/guidelines/instructions issued by IBM from time to time should be followed while disposing mining plan.

3.1.38 In case of disapproval prior to the final stage, hard copy submitted in the Regional Office shall be stamped as "DISAPPROVED" on the pages as mentioned under item 3.1.35 but signature of the competent authority on the first page of the document shall be considered as sufficient. In case of disapproval at the final stage, one copy of the document should be suitably stamped and signed as above and rest two copies shall be returned to the lessee alongwith the rejection letter.

3.1.39 Date of survey for the preparation of Mining Plan document should be within 3 months of submission of the document for category 'A' and within 6 months for category 'B'.

3.1.40 Financial Assurance shall be submitted (as per the format enclosed as Annexure-XIII) prior to the expiry of existing FA submitted in the Regional Offices. Suitable condition should be inserted in the approval letter of the Mining Plan document and in case of non-submission of FA before expiry, the document shall be liable for rejection. DDO/Officer In-charge looking after the administrative work (wherever DDO is not available) of each region being custodian of the Financial Assurance shall maintain the status of FA for all the leases in the region in a bound register which should be checked periodically by the RCOM/DCOM (I/C). The financial assurance received in the form of bank guarantee should be verified from the issuing bank through e-mail giving 15 days time after which it is construed that bank has nothing to say and the same may be considered as confirmed by the bank.

3.1.41 In the proposals for five years production, other statutory restrictions regarding production should be clearly indicated by the QP (such as EC limit or production capping in the state of Goa, Karnataka etc.). Proposals can go beyond the EC limits but the document shall be enclosed with an undertaking by the lessee/nominated owner specifically mentioning that the production shall be kept within EC limits till enhanced EC is granted by MoEF.

3.1.42 TMIS database entry for each activity in the disposal of Mining Plan should be ensured by the inspecting officer; which in turn should be monitored by the concerned RCOM/DCOM (I/C).

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CHAPTER-IV: GUIDELINES FOR SCRUTINY OF MINING PLANS

The following guideline is provided for examination and scrutiny of Mining Plan/Review of Mining Plan/Modifications in Mining Plan. These are generalised in nature. For any specific condition, not referred herein, clarification/guidance may be sought from the respective Controller of Mines.

4.1 Geology and Reserves

4.1.1. Physiography: The aspects to be looked into are topography of terrain, drainage pattern, vegetation, climate, rainfall data of the area applied /mining lease area.

4.1.2. Geology: Surface geological map with suitable contour interval on a scale of 1:2000/1:1000 may be examined for features detailed below:

- i) Disposition of all lithological units with clear nomenclature and their descriptions.
- ii) Contacts of lithounits/rock types traced or inferred
- iii) Attitudes like strike and dip available in adequate numbers.
- iv) Structural features such as joints, folds, faults and their attitudes
- v) Delineation of mineralized/ore zones with definite demarcation of observed and inferred.

4.1.3. Details of Exploration already carried out.

In case the area has been explored by a formal Prospecting license, details of submission of a copy of the prospecting report submitted to the Regional office may be verified. If so the data provided may match the information given in the mining Plan. In case the area was not held by prospecting license and formally explored by other agencies, the exploration details may confirm to minimum 5 years envisaged tonnages from tentative ROM excavation under reserve category as per MEMC Rules 2015. The exploration details may include:

- i) Details on exploration already carried out in the area with regard to location of pits, trenches, boreholes, exploratory

mine workings like adits, shafts, inclines, and old workings etc. may be shown on geological plan mentioned above. These may accompany suitable longitudinal and transverse geological sections, on a prescribed scale for opencast mines depending upon the complexity of deposit and variation of grade. Sections are to be prepared using borehole/pit/trench/ lithologs.

- ii) Verify Copies of notices in form I & also verify Form J maintained by the lessee (erstwhile form J & K of MCDR 1988) of the preceding 5 years period submitted to IBM under MCDR'88 regarding prospecting/ exploration undertaken within the mining lease or during prospecting license period in case of mining plan of fresh Grant.
- iii) Lithologs of pits, benches, boreholes and other exploratory workings along with sampling data may be given showing locations of samples and their chemical analysis results. Recovery and tonnage factor may be calculated from ore actually produced from pits and trenches.
- iv) Geological plans of all underground exploratory workings with assay data may be available on a prescribed scale.
- v) Geological longitudinal sections and transverse sections at 30m interval and above depending upon extent, complexity of deposit and variation of grade on natural scale of the plan are also to be enclosed for underground mines.
- vi) Details of geophysical and geochemical exploration carried out if any.

4.1.3.1 Exploration proposed to be carried out (in case adequate total reserves is not established for the tenure of lease)

- i) The scheme of exploration may be consistent with the tentative excavation programme indicated by applicant and may include the quantum of work with anticipated results. Further, as per Rule 12 of MCDR'2017/ Rule 22 of the Mineral (Auction) Rule 2015, the holder of a mining lease is required to complete detailed exploration (G1 level exploration) and to prepare a detailed feasibility study report conforming to Part IV and V of the Mineral(Evidence of Mineral Contents) Rules, 2015 over the entire area under the mining lease, within a period of five years from

the date of commencement of such mining lease. Therefore, it may be ensured that lessee proposes exploration activities in the first five years period so as to prove entire mineralised area upto G1 level along with feasibility study and economic evaluation of the deposit. The exploration proposal should be furnished year wise, site specific and continuous manner.

- ii) The exploration details may include pitting, trenching, drilling and exploratory mining wherever necessary. All such proposal of exploratory workings may be distinctly marked on the geological plan year-wise in different colours.

4.1.4 Reserve/Resource Estimation:

4.1.4.1 Parameters for Estimation: The parameters considered for estimation of reserve/resource and basis for their categorization may be defined, which may include the following:-

- i) Delineating shape and size of ore shoots or mineralized zones with authentic exploration data.
- ii) Determination of bulk density and recovery factor based on field test.
- iii) Critical examination of grade characteristics spelling out size and grade distribution.
- iv) Cut-off grade of ROM with reference to threshold value.
- v) Basis of categorization of reserves and resources based on intensity of exploration, feasibility or pre-feasibility and economic evaluation study results as specified under Mineral (Evidence of Mineral Contents) Rules 2015.
- vi) Check analysis of at least 10% of samples may be analysed from third party NABL accredited or any Govt. lab etc. as per serial number 12 of Part IV-A of MEMC Rules'2015.
- vii) Determination of bulk density should be done as per the provisions of serial number 14 of Part IV-A of MEMC Rules'2015. Preferably, bulk density determination should be done by third party NABL accredited or any Govt. lab.

4.2 Opencast mining:

- 4.2.1.** Configuration of deposit and nature of ore body and wall rocks for opting opencast mining methods and justifying the Category of the mine
- 4.2.2.** Check reserves considering various barriers, roads, canals, buildings, human settlements etc.
- 4.2.3.** Year wise tentative OB removal, ROM removal, Total Excavation.
- 4.2.4.** Verify excavation proposal for correctness and feasibility, keeping proposed mining system, machinery and man power in view. The following points have to be looked into in particular;
- i) Appropriate bench heights and widths
 - ii) Number of pits and their necessity in relation to concentration of workings and environmental aspects.
 - iii) Accessibility for transport from various working benches.
 - iv) Grade control considering blending possibility
 - v) Provision of sump
 - vi) MDPA (Mine development and production Agreement) with State Government in case of leases granted through auction.
- 4.2.5.** Check norms of performance for drilling, blasting, loading, etc. both for man and machinery. For this purpose thumb rules may be used (see 4.2.9). If there is human settlement or buildings nearby, ask for ground vibration and noise level study.
- 4.2.6.** Check for standby provisions
- 4.2.7.** Check roughly ultimate pit limit keeping an ultimate slope of 35 degrees to 60 degrees depending upon nature of wall rocks.
- 4.2.8.** Check location of waste/subgrade dumps/stacks, buildings etc. in relation to ultimate pit limit and mineralisation of the area. Dumping in or along or in the vicinity of valley should be avoided. Dumping in retreat manner should be preferred.

4.2.9. Thumb rules of performance of common mining machinery and powder factor in different rock

Mining Machinery	Size/Capacity	Performance
Drills		
Jack Hammers	33mm	10 to 15 mtr/ hr
Wagon drill	100mm	25 to 36 mtr/hr
Top Hammer Drill Atlas Copco Roc F 8	100mm	15 to 20m/hr
Atlas Copco Roc F 9	100mm	25-30m/hr
ROC L8(Atlas Copco) DTH	150mm	18 to 25m/hr
Drill master – I.R.	150mm	20 to 30 mtr/hr
Drill master – I.R.	225mm	20 to 30 mtr/hr
BBC-Samba Drill	1.2m	10m/hr
Norms of air consumption		
Jack hammers		3m ³
Wagon drills		6m ³
Large dia blast hole drill	150mm	10m ³
-do-	225mm	15m ³
Loaders		
Rope shovel	1.9m ³	750 to 1000 tonnes
-do-	4.6m ³	2500 to 3000 tonnes
Hydraulic shovel	2.3m ³	1000 to 1500 tonnes
-do-	3.0m ³	1200 to 1800 tonnes
-do-	3.5m ³	2000 to 2500 tonnes
-do-	6.0m ³	3000 to 4000 tonnes
-do-	10.0m ³	7000 to 10000 tonnes
Surface Miner	Model SM-2200	200 – 225 tons/hour in sedimentary & milonitic Limestone
	Model SM-2600	3tons/hour in sedimentary & milonitic Limestone
Dumpers		
1.5 km haul distance	25 tonnes	400 tonnes
0.5 km -do-	35 tonnes	2000 tonnes
2.5 km -do-	35 tonnes	500 tonnes
2.0km -do-	90tonnes	1500 tonnes
1.5km -do-	50tonnes	1000tonnes
1.7km -do-	100tonnes	2000tonnes
Powder Factor (tonnes of rock/kg of explosive)		
Mineral	Type of drill used	
	Jack Hammers	Deep hole blast
Iron ore	4 to 6	5 to 8
Limestone	6 to 8	9 to 10

Note : The above figures may be treated as only rough guides. These may be modified on gaining experience.

4.2.10. Plans and sections:

Precise area map/lease plan, surface plan, geological plan & section, year-wise tentative excavation plan & sections, reclamation plan, environment plan, financial area assurance plan and conceptual plan are to be enclosed.

4.3 Guidelines for Scrutiny of underground mines

4.3.1. Specific reasons and factors for adopting underground mining

- a) Configuration of deposit and nature of ore body and wall rocks for opting underground mining methods and justifying the Category of the mine examining the techno-economic viability
- b) Exploitation proposals should be such that the conservational aspect of mineral extraction is optimized from the lease area and this should be ensured through the lateral exploration at least upto 30 m from the extreme footwall/hangwall drives

4.3.2 Plans and sections:

Surface plan, geological plan& section, year-wise tentative excavation plan and sections, reclamation plan and conceptual plan, level plan, vertical transverse section, assay plan, mine ventilation plan, water danger plan showing maximum flood level and plans showing method and sequence of stoping, etc., shall be submitted.

4.3.3 Size of development, size of pillars should be such that working remains stable during development and stoping stages.

4.3.4. Size of level/winzes/raises/pillars: They should be commensurate with MMR,1961 and MCDR,1988 and should also take into account size of equipment to be used; pillars should be regular in size and shape in general and should be stable.

4.3.5. Level and Winzes intervals: They should not be too close which virtually amounts to partial stoping and should not be allowed.

4.3.6 Examination of proposed mining method: Here examine the workability of deposit and technical viability of the proposal submitted.

4.3.7. Year wise development in ore and waste: Proposed developments should be shown in plans and sections for every year level wise in different colours preferably.

4.3.8. Proposed tentative year-wise ROM and waste excavation for five years.

4.3.9. Stopping proposals: The following may be examined

- a) Adequacy of development should be in such a way that next stope block should be ready by the time of exhaustion of the block under stoping operations
- b) Area covered under proposed stoping
- c) Justification for the method suggested
- d) Whether broad limit of stoping has been shown on plans and sections.
- e) Whether any cut-off grade has been adopted.
- f) Proposed recovery (% extraction) from stoping.
- g) Dilution factors and grade control problems
- h) Any proposal for extraction of remnant pillars e.g. crown, sill etc.
- i) Minimum rate of development should be ensured in the mine while proposing for stoping.
- i) In case of cut and fill stoping, source of fill material and nature of fill material (e.g. toxic etc.)
- j) Whether any surface subsidence has been visualized and if so, whether precautionary measures have been suggested.

Explanatory Note: It should not go into much detail for examining the stoping while processing of mining plan as in any case, each stoping proposal has to be submitted statutorily under rules made under Section 18 of the MMDR Act 1957 and cleared. As and when the mine has actually been developed for stoping, the proposal will be thoroughly examined. Therefore, for the purpose

of mining plan, it may be ensured that reasonable stoping proposal outline is submitted.

4.3.10. System of Winding: If depth of shaft is more than 60m, check if provision of man winding is provided.

4.3.11. Mine Ventilation: Adequacy of ventilation arrangement may be examined.

4.3.12. Extent of Mechanization: Whether different items of equipment provided are adequate including standby, if any to handle the proposed total tonnage to be mined/excavated which includes ROM and Waste and ancillary activities like de-watering pumps, adequacy of ventilation equipment, winding equipments etc.

4.3.13. Blasting:

- a) Whether drilling and blasting practices have been indicated separately for development and stoping
- b) Examine adequacy and efficiency of drilling blasting programme.
- c) Geo-technical studies proposed/done for ensuring stability of the mine openings, if any.

4.3.14. Mine Drainage: Make of water/seepage from underground workings, adequacy of sumps and its locations at different levels and also adequacy of pumping capacity may be provided.

4.3.15. Disposal of waste/sub-grade: Examine whether the rate of waste/subgrade mine generation is furnished and proposed to be taken out of mine regularly and separately stacked. Whether holding capacity of dumping sites are adequate or not.

4.3.16. Reclamation of old working: Proposals for reclamation of old workings and sealing of the abandoned part of the mines need be examined. If the waste rock is not sufficient, whether provision of stowing is proposed from the mill tailings (if applicable) or not may be examined.

4.3.17. Safety Aspects: The following special points on safety aspects may be examined

- a) RL of collar of entry points in relation to highest flood level in the area.
- b) Whether 7.5m safety barrier along mine lease boundary has been considered
- c) Whether minimum of 13.5m distance between 2 shafts/inclines has been provided.
- d) Whether adequate size of shaft/pillars has been provided for stability during whole lease period.
- e) Whether at least 16m surface cover is provided before opening 1st level.
- f) Whether there is any presence of old working/water logged areas within the area or within 60m distance from boundary.
- g) Precautions to be taken for approaching old workings, if any.

4.4 Guidelines for scrutiny with respect to environment:

4.4.1 Check whether any court order/Govt. order/statutory restrictions have been imposed prohibiting mining operations in the area. In that event, mining plan will be approved subject to these stipulations. If felt necessary, the additional information may be obtained from the concern authority.

4.4.2 Baseline Information – Existing Land use pattern: Check existing land use pattern and ownership are furnished.

4.4.3 Water regime: Check whether information on surface drainage system has been furnished on surface plan/geological plan. Examine information on water quality. Check whether environment impact assessment has been given or not. Quality of statement to be assessed in general. Special emphasis on land, water and human settlements should be given. Effect of blasting should also be examined. Water balance chart and any proposal for rain water harvesting should be examined.

4.4.4 Flora & Fauna: For flora, check information furnished on the types and density of trees/plants within lease area and for fauna check the information furnished accordingly.

4.4.5 Storage and preservation of top soil :

- a) Thickness and types of soil occurring over mineralized area where mining is proposed and spread of top soil over the dumps and stacked in the stacking area.
- b) Manner of removal of top soil and its preservation for reclamation of mined outland or revegetation of waste dumps or green belt development.

4.4.6 Proposal for reclamation of land affected by mining activities: Reclamation & Rehabilitation plan should be submitted.

4.4.7 Measures for dust suppression: Dust suppression measures should be such that dust is suppressed by sprinkling of water at or near the sources, during drilling and on the haul roads.

In case there is any public road or human settlement or agricultural land in neighbourhood, creation of green belt for arresting dust by planting exotic fast growing varieties like eucalyptus etc. could be considered.

Monitoring should be done as per guidelines of MoEF in this regard.

4.4.8 Measures to minimize vibration due to blast and check noise pollution:

- a) Vibration: Type of explosives proposed to be used and maximum charge per delay vis-à-vis IS specifications -1973 to keep the vibration within permissible limits. Whether any controlled blasting techniques are proposed to be adopted.
- b) Noise: Whether any provision has been made to check noise levels at various places.

4.4.9 Stabilisation and vegetation of dumps: Examine the methods proposed to be adopted for stabilization of dump, terracing, vegetation etc.

4.4.10. Tailing Dam: Selection of site for tailing pond with respect to stability and permeability based on the hydrological study of the area.

4.4.11 While examining the Mining Plan document, surface features available within 60 m area from the lease boundary should be checked as per Rule 5(b) of MCDR'2017 and to check whether the features are shown in the Environment Plan or not.

4.5 Guidelines for scrutiny with respect to mineral beneficiation.

4.5.1 If the ROM needs to be beneficiated, then the complete analysis (both chemical and mineralogical) of the feed and capacity of proposed mill along with the grade and other specifications of beneficiated products should be indicated.

4.5.2 If laboratory/pilot plant test work was already carried out on the sample, process flow sheet, details of process adopted, projected grades, material balance chart and recoveries of beneficiation products should be given.

4.5.3 Complete details regarding physical and chemical characteristics of tailings, their possible reuse, if any along with the design, size and capacity of tailing pond should be indicated. Details of process of water treatment, if any and quality and quantity of final discharge and the place of its disposal (proximity to rivers, public well or any other public utility places) should be furnished.

-0-0-

CHAPTER-V: MINING PLAN FORMAT

FORMAT FOR PREPARATION OF MINING PLAN /REVIEW OF MINING PLAN/MODIFICATIONS IN MINING PLAN

Cover Page of the Mining Plan should give the following Information

Mining Plan*/Review of Mining Plan*/Modifications* in Mining Plan submitted under Rule 16(1)*/17(2)*/17(3)* of Minerals (Other than Atomic and Hydro-Carbons Energy Minerals) Concession Rules, 2016

(*Strike out whichever is not applicable)

1. Name of the Deposit/Mine along with Mining Lease Number/TC Number/Lease Number if any.
2. Name and address of the Applicant/Mining Lease Holder.
3. Name of the Village, Taluka, District and State where the deposit/ Mining Lease falls. (In case of multiple villages, indicate the prominent village name(s) with etc.)
4. Area (in ha) of the applied area/mining lease with break-up of Forest and Non-forest area).
5. Registration Number allocated by IBM if any to applicant/lease holder.
6. Category of Mine (A-Fully Mechanised/A-Others/B).
7. Period of Proposals (Not applicable for fresh grant of Mining Lease).
8. Name of the Qualified Person (QP) and his Qualification who prepared the document.

**Model Certificates / Undertakings/ Consents to be furnished
By Applicant/Lease Holder
CONSENT LETTER/ UNDERTAKING/ CERTIFICATE**

01 The Mining Plan^/Review of Mining Plan^/Modifications^ in the Mining Plan/ Final Mine Closure Plan^in respect of (Name of Mine) Mine over an area of (Area in Hact.), in (Village), P.O. (Name of Post office), District (Name of district), (Name of state), bearing Mining Lease No./T.C. No. (if any) submitted under Rule 16(1)^/17(2)^/17(3)^ of Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016/ Rule 24 of MCDR'2017has been prepared by Qualified Person (QP)(Name of QP).

This is to request the Regional Controller of Mines, Indian Bureau of Mines, -----, to make any further correspondence regarding any correction ofthe Mining Plan^/Review of Mining Plan^/Modifications^ in the Mining Plan / Final Mine Closure Plan^ with the said qualified person at hisaddress below :-
(Full name of QP and address)

We hereby undertake that all information/ modifications / updating as made in the said Mining Plan^/Review of Mining Plan^/Modifications^ in the Mining Plan/ Final Mine Closure Plan^by the said qualified person be deemed to have been made with our knowledge and consent and shall be acceptable on us and binding in all respects.

02 It is certified that the **CCOM Circular No-2/2010** has been implemented/will be implemented and complied within 6 months of authorization of agency by the state government or within 6 months of lease execution (whichever is earlier).

03 It is certified that the Progressive Mine Closure plan/ Final Mine Closure Plan^ complies with all statutory rules, Regulations, Orders Made by the Central or State Government, Statutory organization, Court etc. which have been taken into consideration and wherever any specific permission is required the lessee will approach the concerned authorities.

04 “The provisions of **Mines Act, Rules and Regulations** made there under have been observed in the Mining Plan^/Review of Mining Plan^/Modifications^ in the Mining Plan/Final Mine Closure Plan^over an area of ----- hectares in -----district in -----state belonging to (Name of Mine)**Mine**, and where specific permissions are required, the applicant will approach the **D.G.M.S.** Further, standards prescribed by **D.G.M.S.** in respect of **miners’ health** will be strictly implemented”.

05.The information furnished in the **Mining Plan/** Final Mine Closure Plan^is true and correct to the best of our knowledge and records.

06 “It is to undertake that the Modification in the Approved Mining Plan has been prepared for enhanced production beyond the existing EC limits but

actual enhanced production from the lease area shall start only after the necessary clearances are obtained from MoEF”.

07 It is to undertake that all the measures proposed in this Progressive/Final Mine Closure Plan will be implemented in a time bound manner as proposed.

**Place : { Name of Owner(in case of Individual)
/Managing Partner (in case of firm)/
NominatedOwner (in case of Company)}**
**Date : Designation
Name of Company/Organisation**

^ Strike out whichever is not applicable

**Model Certificates to be furnished
By Qualified Person**

CERTIFICATE FROM QP:

The provisions of the Mineral Conservation and Development Rules 2017 made under Section 18 of the Mines & Minerals (Development & Regulation) Act 1957, have been observed in the preparation of the Mining Plan^/Review of Mining Plan^/Modifications^ in the Mining Plan/Final Mine Closure Plan^for **(Name of Mine) Mine** over an area of **(area in hect)**, of M/s **(Name of Owner/ Company/Organization)**, in **(Village name)**, P.O. **(Post office name)**, District **(District name)** of **(State name)** State and whenever specific permissions are required, the applicant will approach the concerned authorities of **Indian Bureau of Mines**. The information furnished in the Mining Plan^/Review of Mining Plan^/Modifications^ in the Mining Plan/Final Mine Closure Plan^is true and correct to the best of our knowledge.

^ Strike out whichever is not applicable

Place: -----
Date: -----

Signature
(Name of Qualified Person)

SUMMARY OF PROPOSALS AT A GLANCE
PERIOD: -----TO -----

Proposal	Year						Remarks
	I	II	III	IV	V		
Exploration							
No of Boreholes (Core/RC/DTH) with meterage							
No of Pits/ Trenches with dimensions							
Any other Exploration activity (to indicate)							
Excavation							
Top Soil in m ³							
ROM in Tonnes							
Waste Material in m ³							
Area Utilisation							
Area under Mining (in Ha)							
Area under Waste dumping (in Ha)							
Area under Mineral Reject (in Ha)							
Area under Top Soil stack (in Ha)							
Area under Tailings if any (in Ha)							
Area already reclaimed and rehabilitated (in Ha)							
Stacking							
Top Soil in m ³							
Mineral Reject in Tonnes (above threshold)							

value)							
Waste material in m ³							
Environmental Protective Measures							
Plantation for green cover/reclamation:							
Numbers							
Area							
Plantation over waste dumps:							
Numbers							
Area							
Reclamation of mine out area							
Construction of:							
Check Dams numbers							
Retaining Wall in meters							
Garland drain in meters							
Settling ponds (Numbers)							
Any other environmental protective measures(to be indicated)							

Mining Plan for (Name of the Deposit/Mine with ML/TC No) **of Shri/M/s ----- over an area of ----- Ha situated in ----- District of -----State.**

CHAPTER-I INTRODUCTION AND GENERAL INFORMATION

1.0	PART-A: INTRODUCTION
	A brief introduction of the mine since when granted etc./about applicant/leaseholder may be given

2.0	PART-B: GENERAL INFORMATION
2.1	Name of the Applicant /lessee
	Address:
	District:
	State:
	Pin Code:
	Phone& Mobile No:
	Fax:
	e-mail:
2.2	IBM Registration Number
2.3	Status of applicant/lessee: (Private individual/ Cooperative Association/ Private Company/ Public Company/ Public Sector Undertaking / Joint Sector Undertaking)
2.4	Name of partner/ Directors with full address & phone fax & email details
2.5	Reference letter of state govt./Letter of Intent for grant of lease (for fresh grant of lease only)
2.6	Mineral(s) which is included in the lease deed

2.7	Mineral(s) which is the applicant/lessee intends to mine	
2.8	Name of Qualified Person who prepared Mining Plan and his qualifications & experience	
	Address-	
	Phone number /mobile number/email Id	
	Fax Number	

3.0		PART-C: LOCATION AND ACCESSIBILITY OF AREA /MINES				
3.1	Name of mine/ applied area					
3.2	Lease No/TC No.& Minecode if allotted					
3.3	Date of grant of lease and date of Execution of lease.					
3.4	Period of lease from---- to---- years					
3.5	Location of mine/ area Village, Tehsil, Police station - District, PIN					
3.6	Postal address for deposit/ mines					
	Post:-					
	Tehsil/taluka:-					
	District & State:-					
	Pin Code:-					
	Phone/Mobile:-					
	Fax:-					
	e-mail:-					
3.7	Details of applied/ lease area with location plan- (type of land-reserve forest, protected forest, other forest, waste land , grazing land, agriculture land and others to specify)					
3.7.1	a)-Non--Forest area with khasra/ survey No.	Area in ha	Type of land	Ownership	Area acquired/ surface rights obtained	
	i)					
	ii)					
	iii)					
	Sub Total (a)					
3.7.2	b) - Forest Area with Block No. /Forest					

	survey No.				
	i)				
	ii)				
	iii)				
	Sub Total (b)				
	Grand Total (a+b)				

3.8	Whether the area falls under Coastal Regulation Zone(CRZ)? If yes, details thereof		
3.9	Nearest distance from any boundary pillar to the nearby National Park/Wild Life Sanctuary/Protected Area (to be given if located within 10km from the radius of applied/lease area)		
3.10	Existence of public road/railway line, if any nearby and approximate distance-		
3.11	Approach route from District Head Quarters to area/ mine site.		
3.12	Topo sheet No. of Survey of India Map		
3.13	Latitude & Longitude of all corner boundary point/ pillar Fixed reference point (FRP)	Latitude	Longitude
	Pillar no1		
	Pillar no-2		
	Pillar no-3		
	Pillar no-4		
	Pillar no-5		
	Pillar no-6& so on		
3.14	Status of award of Star Rating as per Rule 35(3) of MCDR 2017 during the last two financial year indicating level of Star obtained		

Attach a general location map showing area and access routes. It is preferred that the area be marked on a Survey of India topographical map or a cadastral map or forest map as the case may be. However, if none of these

are available, the area may be shown on an administrative map.

4.0	PART-IV: DETAILS OF APPROVED MINING PLAN (if any)			
4.1	Date and reference of earlier approved MP/SOM			
Sl. No.	Type of document & rule under which prepared	approval letter No & date	Lease area for which approval given (ha)	Proposal from –to (period of years)
a)				
b)				
c)				

4.2	Details of last modifications, if any (for approved MP/RMP, indicating date of approval, reason for modification of previous approved period)					
Sr. No.	Modification (MP/SOM)	Rule under which modified	Reasons for modifications	Area	Date of approval	Period of modification
a)						
b)						
c)						

5	PART-V: REVIEW OF EARLIER APPROVED PROPSALS- (Exploration, Development & Reclamation etc)			
	Items	Proposals	Actual work done	Remarks/Reasons for deviations , if any
5.1	Exploration for Geological axis 1 or 2. Bore holes – Trail pits& Trenches-			
5.2	Number of pits proposed for production			
5.3	Location of Development			
5.4	Total Quantity of topsoil removed, used and stacked in five years period in m3			
5.5	Quantity of overburden m ³			
	1 st year (Years to be indicated)			

	2 nd Year			
	3 rd Year			
	4 th year			
	5 th year			
	Total			
5.6	Production of ROM (in Tonnes)			
	1 st year			
	2 nd Year			
	3 rd Year			
	4 th year			
	5 th year			
	Total			
5.7	Total Quantity of Mineral Reject stacking in tonnes			
5.8	Overall Stripping ratio or Ore to OB ratio in five years period. (T/m ³)			
5.9	Height of benches in Overburden and in Ore (mts)			
5.10	Location of topsoil dumps			
5.11	Location of OB & mineral reject dumps			
5.12	Length of Retaining wall or garland drain all along dump.			
5.13	Area under backfilling of mined out area			
5.14	Plantation/ Afforestation			
5.15	Number of settling ponds			
	Control of dust			
	Control of Noise and ground vibration			
	Quality of air			
	Quality of water			
5.16	Area proposed for put to use in last Mining Plan/Scheme of Mining proposals at end of five year period-			
	Item details	Proposed area in last	Actual area as on date (ha)	Remark

		document.(ha)		
	i) Area under mining			
	ii) Storage for top soil			
	iii)Waste dump site			
	iv) Mineral storage			
	v) Infrastructure – workshop, administrative building etc.			
	vi) Roads			
	vii) Railways			
	viii)Tailing pond			
	ix) Effluent Treatment Plant			
	x) Mineral Separation Plant			
	xi) Township area			
	xii) Others (to specify)			
	xiii) Total in ha			

5.17	Give status of compliance of violations pointed out by IBM for last 5 years			
Sr.No	Date of inspection/ Violation date if based on office record	Violation letter no.	Rule violated (Details of violation)	Compliance status
i)				
ii)				
iii)				
5.18	Whether IBM has suspended the mining operations in the said mine during last five years period? If yes give details below:			
Sr.No	Date of Suspension of mining operations	Suspension Letter No.	Deviation of Rules for which the suspension order issued.	Compliance status/Letter No. and Date of revocation of suspension order by IBM
i)				
ii)				

5.19	Indicate and give details of any suspension /closure/prohibitory order issued by any Government agency (other than IBM) under any rule or Court of law during the last five years period
5.20	Details of revocations order if any -
5.21	In case the Mining Plan is submitted for modifications in the earlier approved proposal under Rule 17(3) of Minerals (Other than Atomic and Hydro-Carbon Energy Minerals) Concession Rule 2016, indicate/ specify reasons and justification for modification.

CHAPTER-II GEOLGY AND EXPLORATION

6.1	Briefly describe the topography, drainage pattern, vegetation, climate, rainfall data of the area applied/mining lease area.
6.1.1	PHYSIOGRAGHY-
6.1.2	DRANAGE PATTERN -
6.1.3	VEGETATION-
6.1.4	CLIMATE-
6.2	REGIONAL GEOLOGY-- Brief descriptions of Regional Geology with reference to location of lease/applied area. Under this different rock types, strike and dip direction and structures, control of mineralisation and stratigraphy in brief should also be given.

6.2	LOCAL GEOLOGY:- Detailed description of geology of the lease area such as shape and size of the mineral / ore deposit, disposition of various litho-units indicating structural features, associated rocks, thickness of the ore body etc. should be described

6.3	i) Name of prospecting /exploration agency-	
	ii) Address-	
	iii) E mails-	
	iv) Phone /fax etc-	

6.4	Details of prospecting/exploration already carried out :	
6.4.1	Extent of Geological mapping with scale, surface sampling, Number of pits and trenches indicating dimensions, spacing etc along and across the strike/ foliation with reference to geological plan.	
6.4.2	Number of boreholes indicating type (Core/RC/DTH), diameter, spacing, inclination, Collar level, depth etc with standard borehole logs duly marking on geological plan/sections.	
6.4.3	Details of samples analysis (10% of the samples should be analysed from Govt. accredited laboratories):-	
6.4.4	Expenditure incurred in various prospecting operations.	

6.4.5	Total lease area explored under various categories (Area in Ha.)	
	G1	
	G2	
	G3	
	G4	
	Total	

6.5	Method of mineral resource estimation (surface area method, cross section area method or indicate the software used) This should be calculated separately for Forest area and non-forest area.	
6.5.1	Parameters for resource estimation:-	
	Strike length-	
	Width / thickness	
	Depth/mRL	
	Cut-off grade	
	Bulk density	
	Thresh hold Value	
	Others	

6.5.2	Geological Axis :--	
	Depth (mRL/ Level) and area considered for G1 - Detailed exploration	
	Depth (mRL/ Level) and area considered for G2 - General Exploration	
	Depth (mRL/ Level) and area considered for G3 - Prospecting	
	Depth (mRL/ Level) and area considered for G4- Reconnaissance	

6.5.3	Mineral resource & Associated waste Calculation table -						
Secti on Line	Influence length in mts	Top soil Section area in Sq.mts	Top soil CUM	Waste/ OB section area in Sq.mts	OB in CUM	ROM section area in in Sq.mts	ROM in CUM
AA1							
BB1							
CC1							
DD1							
EE1							

.....							
-------	--	--	--	--	--	--	--

6.5.4	Mineral Reserves/ Resources as per Geological axis of UNFC:-:		
	Level of Exploration	Resources in tonnes	Grade
	G1 - Detailed exploration		
	G2 - General Exploration		
	G3 - Prospecting		
	G4- Reconnaissance		

6.5.5 FEASIBILITY AXIS OF UNFC:- feasibility / prefeasibility considerations for blocked mineral resources in barrier zone, benches, pillars, road, railway, river, nala, reservoir, electric line and other statutory barriers etc, under forest, sanctuaries etc. where necessary permissions are not available, non-mineable part etc) in different categories and their calculation as under -

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6.5.6	Summary of blocked Mineral reserve/resources from in different category-		
	Level of Exploration	Blocked Resources in tones	Grade
	G1 - Detailed exploration		
	G2 - General Exploration		
	G3 - Prospecting		
	G4- Reconnaissance		

6.5.7	Economical axis details as per UNFC:-		

6.5.8	Total estimated mineral reserve/ resources in different categories of UNFC are given below:- (To be indicated separately for Forest and non-forest area)			
	A. Total Mineral Reserve	UNFC Code	Quantity in tons	Grade
	Proved Mineral Reserve 111	111		

	Probable mineral Reserve 121 and 122	121 & 122		
	B. Total Remaining Resources			
	Feasibility mineral Resource	211		
	Prefeasibility mineral resource	221 & 222		
	Measured mineral resource	331		
	Indicated mineral resource	332		
	Inferred mineral resource	333		
	Reconnaissance mineral resource	334		
	Total Reserves + Resources			

Guidelines for Resource Estimation

1. The surface plan of the lease area may be prepared on a scale of 1:1000 or 1: 2000 with contour interval of maximum of 10 m depending upon the topography and size of the area duly marked by grid lines showing all features indicated required under Rules made under Section 18 of the MMDR Act 1957.
2. For preparation of geological plan, surface plan prepared on a scale of 1: 1000 or 1: 2000 scale may be taken as the base plan. The details of exploration already carried out along with supporting data for existence of mineral, locations proposed exploration, various lithounits along with structural features, mineralized/ore zone with grade variation if any may be marked on the geological plan along with other features indicated under Rules made under Section 18 of the MMDR Act 1957.
3. Geological sections may be prepared on natural scale of geological plan at suitable interval across the lease area from boundary to boundary.
4. Reserves and Resources with respect to the threshold value notified by IBM may be furnished in a tabular form: (Area explored under different level of exploration may be marked on the geological plan and code for area considered for different categories of reserve/resources estimation may also be marked on geological cross sections).
5. Submit a feasibility/pre-feasibility study report along with financial analysis for economic viability of the deposit as specified under in MEMC Rules 2015.
6. Furnish detailed calculation of reserves/resources section wise (When the mine is fully mechanized and deposit is of complex nature with variation of size, shape of mineralized zones, grade due to intrusion within ore zone etc., an attempt may be made to estimate reserves/resources by slice plan method). In case of deposits where underground mining is proposed, reserve/resources may be estimated

by level plan method, as applicable, as per the proposed mining parameters.

6.6	Broadly indicate the future programme of exploration with due justification(duly marking on Geological plan year wise location in different colours) taking into consideration the future tentative excavation programme planned in next five years as in table below: -

Year	No. of boreholes (Core / RC /DTH)	Grid interval	Total meterage	No. of Pits, dimensions and volume	No. of Trenches, dimensions
1st					
2nd					
3rd					
4th					
5th					

CHAPTER-III MINING

7.0	MINING				
7.1	A. OPEN CAST MINING:				
a)	Briefly describe the existing as well as proposed method for excavation with alldesign parameters indicating on plans /sections.-				
7.2	Indicate year-wise tentative Excavation in Cubic Meters indicating development, ROM, pit wise as in table below.				
7.2.1	INSITU TENTATIVE EXCAVATION				
(a)	YEAR WISE DEVELOPMMENT PROPOSAL				
Year	Pit no	Top soil	Overburden	Total waste	Total waste

		(in m ³)	(OB)/Side burden (SB)/ Inter burden (IB)(in m ³)	(in m ³)	(in tonnes)
(1)	(2)	(3)	(4)	5=(3+4)	(6)
I					
II					
III					
IV					
V					

(b)	YEAR WISE PRODUCTION PROPOSAL				
Year	Pit no	Total ROM (in m ³)		Total ROM (in Tonnes)	
		Saleable Ore	Mineral Reject	Saleable Ore	Mineral Reject
(1)	(2)	(3)	(4)	(5)	(6)
I					
II					
III					
IV					
V					

The yearwise/benchwise/mRL wise opening reserves, exploitation and closing balance for five years period may be given tabular format wherever, possible

Notes

1. Tentative tonnage of the ore may be arrived by computing approximate bulk density and recovery factor as these data are variable and may be established on time series.
2. **Run-of-Mine (ROM)** means the raw unprocessed or uncrushed material in its natural state obtained after blasting or digging, from the mineralised zone of a lease area
3. **Mineral rejects** means ROM material above the threshold value of minerals notified by IBM but below the cut-off grade of the beneficiation plant/end use/market. Such material may be either grade or size reject. The mineral reject may be (i) chemically subgrade which is below the acceptable limits of specifications that is below the cut-off grade and above the threshold value within or outside ore zone, (ii) materials of physical characteristics not acceptable to the market, (iii) material having deleterious constituents.
4. OB : means overburden capping waste

5. SB : means side burden waste on both hang wall and foot wall sides of the ore body
6. IB: means intermediate burden waste between two or more ore body.
7. Enclose Individual year wise development plans and sections showing pit layouts, dumps, stacks of mineral reject, if any, etc.in case of 'A' category mines. Composite development plans showing pit layouts, dumps, stacks of mineral reject, if any, etc. and year wise sections in case of 'B' category mines.

(c)	YEAR WISE DEVELOPMENT & PRODUCTION		
Year	Total ROM (In Tonnes)	Total overburden waste (m ³)	Ore To OB Ratio t / m ³
(1)	(2)	(3)	(4)=(3)/(2)
I			
II			
III			
IV			
V			

7.2.2	Dump re-handling (for the purpose of recovery of mineral):				
Dump No./ Dump Identification No.	Yearwise handling (in m ³)	Estimated recovery of saleable ROM		Mineral Rejects	
		(in m ³)	(in Tonnes)	(in m ³)	(in Tonnes)

7.2.3	AT A GLANCE YEAR WISE PRODUCTION -			
year	ROM Ore In Tonnes from Insitu	ROM Ore In Tonnes from dump working	Total ROM ore production in Tonnes	Remark
(1)	(2)	(3)	(4)	(5)
I				
II				
III				
IV				
V				

7.3	Describe briefly giving salient features of the proposed method of working indicating Category of mine.	
i)	Method of mining	

ii)	Bench parameters	
iii)	Bench height in OB/ore	
iv)	Bench width	
v)	Bench slope	
vi)	Over all pit slope	
vii)	Bottom mRL proposed during plan period	
viii)	Grid reference of proposed working location	

7.4	BLASTING		
i)	Broad blasting parameters like charge per hole, blasting pattern, charge per delay, maximum number of holes blasted in a round, manner and sequence of firing, etc.		
ii)	Annual ROM proposed = tonnes.		
iii)	Annual waste/OB proposed = tonnes		
iv)	Total annual (ROM + Waste) TMH		
v)	Drilling pattern in ore/ over burden (Spacing * Burden* depth)		
vi)	Yield per holes in ore/ OB Zone , tonnes per holes		
vii)	Annual drilling requirement ,TMH/Yield per hole = mtrs		
viii)	Total Annual Drilling Requirement considering 10 % additional ,TADR =mts		
ix)	Rate of drilling R , mts/hr,		
x)	Total no of working days= 300 days		
xi)	Total Schedule Hours (TSH) of drills 300* no of working hours in a day		
xii)	Actual productive hours considering 80% availability and 50 % utilisation = TSH*.80*.50		
xiii)	Annual Output of one drill machine (AO) in (m)		
xiv)	No of drilling machine required to meet proposed material handling =TADR/AO		

7.5	DRILLING MACHINARIES-			
Sl no	Drilling Machines Make	Dia. Of hole (mm)	Capacity meterage rate of drilling mts / hr	Nos of machines

7.6	Explosive Requirement for over burden removal-		
i)	Frequency of blasting in a week -		
ii)	Maximum number of holes blasted in a round.		
iii)	Charge per hole (kg)		
iv)	Charge per round (Kg)		
v)	Explosive requirement per month for OB removal		

7.7	Explosive Requirement for ORE ZONE		
i)	Total ROM proposed to be handled in CUM/annum (x)		
ii)	ROM proposed to be handled in CUM / day $y = x/300$ days		
iii)	Drilling pattern in ROM zone (Spacing * Burden* depth)		
iv)	Yield per holes in ROM Zone CUM= z		
v)	No of holes required to be blasted per day = y/z		
vi)	Frequency of blasting in a week		
vii)	Maximum number of holes blasted in a round.		
viii)	Charge per hole (kg)		
ix)	Charge per round (Kg)		
x)	Explosive requirement per month for ROM zone blasting		
xi)	Total explosive requirement per month		

7.8	Type of explosives used / to be used		
7.9	Powder factor in ore and overburden / waste.		
7.10	Whether secondary blasting is needed, if so describe it briefly		
7.11	Storage of explosives (like capacity and type of explosive magazine)		

7.12	Excavation	
7.13	Loading	
7.14	Transportation	
7.17	Crushing/screening	

7.18	Extent of mechanization- Describe briefly with calculation for adequacy and type of machinery and equipment proposed to be used in different activities of drilling, excavation , loading & transportation

	Type of Excavator	Bucket capacity	Rated production/hr	
	a)			
	b)			
	c)			
	Dumper	Capacity & Make	Rated production/hr	
	a)			
	b)			

7.19	Describe briefly the layout of mine workings, pit road layout, the layout of faces and sites for disposal of overburden/waste along with ground preparation prior to disposal of waste, reject etc. A reference to the plans and sections may be given. UPL or ultimate size of the pit is to be shown for identification of the suitable dumping site.
7.20	Conceptual Mine planning taking into consideration the present available reserves and resources describing the excavation, recovery of ROM. However, disposal of waste, backfilling of voids, reclamation and rehabilitation and drawing UPL shall be planned conceptualizing extraction of entire mineral deposit. Showing the same on a plan with few relevant sections to be enclosed.
7.21	Exploration-

7.22	Excavation-
7.23	Rated production capacity of mines - t/year
7.24	Life of mines -
7.25	Ultimate pit limit -
7.25	Waste Disposal-
7.24	Reclamation and rehabilitation -
7.25	Post mining land use conceptualised-
8.0	UNDERGROUND MINING-
8.1	Mode of entry (adit, incline, shaft, ramp / decline). Briefly describe the reason for choosing the mode of entry and its location with justification
	Describe development and stoping method.
8.2	Underground layout- Attach a note briefly describing the underground layout using longitudinal sections / longitudinal vertical projection and level plans where necessary indication; - sizes and intervals of levels and raises / winzes with proper reasoning - proposed year wise level wise extent of development for five years - along with the support system

8.3	System of drilling and blasting	
a)	Drilling pattern in ore	
b)	Drilling pattern in Rock	
C)	Drilling pattern in Stopes	
d)	Maximum number of holes blasted in a round.	

e)	Charge per round (Kg)	
f)	Charge per hole (kg)	
g)	Type of explosive	
h)	Powder factor (Norms)	
	i)Rock development-	
	ii)Ore development-	
	iii)Stope-	

8.4	<p>Method and sequence of stoping</p> <p>Describe briefly the method of stoping to be adopted, illustrated by plan, cross sections and longitudinal sections indicating broad parameters in the table below. In case it is open stoping attach a Geo technical report from a National Reputed agency on stability of open stopes. In case of filled stopes the detail of filling method to be described with supporting plans and sections. Broader thumb rule in respect of development be considered.</p>

8.5	Stope parameters:	
i)	Number of stopes already stoped out	
ii)	Number of stopes already stored/backfilled	
iii)	Number of stopes under backfilling	
iv)	Number of stopes under preparations	
v)	Number of working stopes	
vi)	Level interval	
vii)	Thickness of crown pillar	
viii)	Thickness of Sill pillar	
ix)	Thickness of Rib pillar	
x)	Size and interval of Stope pillar	
xi)	Size/shape of man way	
xii)	Size/shape of ore pass	
xiii)	Method of stowing/back filling	
xiv)	Method of drainage of stowed water	

8.6	System of underground transportation: Describe in the table below	
a)	From face to pit bottom or loading point.	
b)	From surface to end use plant.	
c)	From surface to end use plant.	
d)	Safety features provided on conveyor/ haulage track/ roadway	

Attach a note briefly describing the system and linking with its adequacy for the desired rate of material and man handling

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8.7	Subsidence management may be described as below.	
8.7.1	Whether surface areas being monitored are marked on plan?	
8.7.2	Details of surface features in the subsidence basin	
8.7.3	Whether monitoring points have been marked on plan as well as on ground?	
8.7.4	Depth of the workings from surface (m) where subsidence is being measured.	
8.7.5	Maximum subsidence observed at monitoring points (mm)	
8.7.6	At what frequency subsidence monitoring is done?	
8.7.7	Whether results of monitoring are being properly recorded?	
8.7.8	Angle of draw observed on dip and strike side.	
8.7.9	Whether critical, sub-critical or super-critical area extracted?	

8.8	Conceptual Mine planning taking into consideration the present available reserves and resources describing the excavation, recovery of ROM, Disposal of waste, stowing/backfilling of voids, surface subsidence, reclamation and rehabilitation showing on a plan with few relevant sections to be enclosed.
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8.9	Mine ventilation: - Enclose a note outlining the steps to be taken to ensure adequate supply of air in all parts of the mine and prevention of noxious gases produced and excessive rise of temperature or
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	humidity so as to ensure adequate ventilation. Also indicate No. & type of main mechanical ventilators, total air requirement as per statute, total intake / return (cu.m/ sec) etc
8.10	Extent of mechanization- Describe briefly with calculation for adequacy and type of machinery and equipment proposed to be used in different activities of drilling, material handling in development and stope, hauling, hoisting to surface, surface transportation and any other operation.

CHAPTER-IV OTHER TECHNICAL PARAMETERS

9.0	MINE DRAINAGE-	
a)	Minimum and maximum depth of water table based on observations from nearby wells and water bodies	
b)	Indicate maximum and minimum depth of Workings.	
c)	Quantity and quality of water likely to be encountered, the pumping arrangements and places where the mine water is finally proposed to be discharged	
d)	Describe regional and local drainage pattern. Also indicate annual rain fall, catchments area, and likely quantity of rain water to flow through the lease area, arrangement for arresting solid wash off etc.	

10.0	STACKING OF TOP SOIL, MINERAL REJECT AND DISPOSAL OF WASTE	
10.1	Indicate briefly the nature and quantity of top soil, overburden / waste and Mineral Reject to be disposed of.	

Year	Top Soil (m ³)		Waste (m ³)		Mineral Reject (m ³)		
	Top soil reuse	Top soil storage	Backfilling	Storage	Mineral reject storage	Mineral reject Blending	Beneficiation
I							
II							
III							
IV							
V							

10.2	The proposed dumping ground within the lease area be proved for presence or absence of mineral and be outside the UPL unless simultaneous backfilling is proposed or purely temporary dumping for a short period is proposed in mineralized area with technical constraints & justification.
10.3	Attach a note indicating the manner of disposal of waste, configuration and sequence of year wise build-up of dumps along with the proposals for protective measures.

11	USE OF MINERAL AND MINERAL REJECT-
11.1	Describe briefly the requirement of end-use industry specifically in terms of physical and chemical composition.
11.2	Give brief requirement of intermediate industries involved in upgradation of mineral before its end-use.
11.3	Give detail requirements for other industries, captive consumption, export, associated industrial use etc.
11.4	Indicate precise physical and chemical specification stipulated by buyers
11.5	Give details of processes adopted to upgrade the ROM to suit the user requirements.
11.6	Year-wise generation of mineral reject

12.0	PROCESSING OF ROM AND MINERAL REJECT
12.1	If processing / beneficiation of the ROM or Mineral Reject is planned to be conducted, briefly describe nature of processing / beneficiation. This may indicate size and grade of feed material and concentrate (finished marketable product), recovery etc.
12.2	Give a material balance chart with a flow sheet or schematic diagram of the processing procedure indicating feed, product, recovery, and its grade at each stage of processing.
12.3	Explain the disposal method for tailings or reject from the processing plant.
12.4	Quantity and quality of tailings /reject proposed to be disposed, size and capacity of tailing pond, toxic effect of such tailings, if any, with process adopted to neutralize any such effect before their disposal and dealing of excess water from the tailings dam.
12.5	Specify quantity and type of chemicals if any to be used in the processing plant.
12.6	Specify quantity and type of chemicals to be stored on site / plant.
12.7	Indicate quantity (cum per day) of water required for mining and processing and sources of supply of water, disposal of water and extent of recycling Water balance chart may be given.

13.0	MISCELLANEOUS	
13.1	Site Services	
13.2	Employment potential-	
	Managerial	
	Supervisory	

	Workers	
	Total -	

CHAPTER-V PROGRESSIVE MINE CLOSURE PLAN

14.0	PROGRESSIVE MINE CLOSURE PLAN
14.1	Environmental Baseline Information Attach a note on the status of baseline information with regard to the following.
a)	existing land use pattern indicating the area already degraded due to mining, roads, processing plant, workshop, township etc in a tabular form.
b)	water regime, quality of air, ambient noise level, flora, climatic conditions
c)	human settlements
d)	public buildings, places of worship and monuments
e)	Indicate any sanctuary is located in the vicinity of leasehold
14.2	Impact Assessment: Attach an Environmental Impact Assessment Statement describing the impact of mining and beneficiation on environment on the following:
i)	Land area indicating the area likely to be degraded due to quarrying, dumping, roads, workshop, processing plant, tailing pond/dam, township etc.
ii)	Air quality-
iii)	Water quality
iv)	Noise levels
v)	Vibration levels (due to blasting)

vi)	Water regime
vii)	Acid mine drainage
viii)	Surface subsidence
ix)	Socio-economics
x)	Historical monuments etc.

14.3	Progressive reclamation Plan :
14.3.1	Mined-Out Land: Describe the proposals to be implemented for reclamation and rehabilitation of mined-out land including the manner in which the actual site of the pit will be restored for future use. The proposals may be supported with yearly plans and sections depicting yearly progress in the activities for land restoration/ reclamation/rehabilitation, afforestation etc, called “ Reclamation Plan ”.
14.3.2	Topsoil Management: The topsoil available at the site and its utilization may be described.
14.3.3	Tailings Dam Management: The steps to be taken for protection and stability of tailing dam, stabilization of tailing material and its utilization, periodic desilting measures to prevent water pollution from tailings etc, arrangement for surplus water overflow along with detail design, structural stability studies, the embankment seepage loss into the receiving environment and ground water contaminant if any may be described.
14.3.4	Acid mine drainage, if any and it’smitigate measures.

14.3.5	Surface subsidence mitigation measures through backfilling of mine voids or by any other means and its monitoring mechanism.
14.3.6	A brief about surface features existing within a periphery of 60 m from the lease boundary as per the Rule 5(b) of MCDR'2017

14.3.7	The information on protective measures for reclamation and rehabilitation works year wise may be provided as per the following table.		
Items	Details	Existing^^	Proposals
Dump management	Area afforested (ha)		
	No of saplings planted		
	Cumulative no of plants		
	Cost including watch and care during the year		
Management of worked out benches	Area available for rehabilitation (ha)		
	Afforestation done (ha)		
	No of saplings planted in the year		
	Cumulative no of plants		
	Any other method of rehabilitation (specify)		
	Cost including watch and care during the year		
Reclamation and Rehabilitation by backfilling	Void available for Backfilling (L x B x D) pitwise /stope wise		
	Void filled by waste /tailings		
	Afforestation on the backfilled area		
	Rehabilitation by making water		

	reservoir		
	Any other means (specify)		
Rehabilitation of waste land within lease	Area available (ha)		
	Area rehabilitated		
	Method of rehabilitation		
Others			

^^To be indicated wherever applicable

14.3.8	Disaster Management and Risk Assessment: This may deal with action plan for high risk accidents like landslides, subsidence flood, inundation in underground mines, fire, seismic activities, tailing dam failure etc. and emergency plan proposed for quick evacuation, ameliorative measures to be taken etc. The capability of lessee to meet such eventualities and the assistance to be required from the local authority may also be described.
14.3.9	Care and maintenance during temporary discontinuance: An emergency plan for the situation of temporary discontinuance due to court order or due to statutory requirements or any other unforeseen circumstances may indicate measures of care, maintenance and monitoring of status of discontinued mining operations expected to re-open in near future.
14.3.10	Expenditure incurred in watch and care: A brief detail of the expenditure proposed/incurred in implementation of PMCP proposals and environment monitoring should be given item-wise.
14.3.11	A brief note on Sustainable Mining: Brief note on sustainable mining and SDF implementations in compliance of Rule 35 of MCDR'2017 should be given.

14.3.12		Financial Assurance - Table indicating the break-up of areas in the Mining Lease For Calculation of Financial assurance				
Sl.	items	Area put to use at start of Plan period (ha)	Additional area requirement during plan period (ha)	Total area (ha)	Area considered as fully reclaimed & rehabilitated ha	Net area considered for calculation ha
(a)	(b)	(c)	(d)	(e)=(c+d)	f	(g)=(e-f)
1	Area under mining					
2	Storage for top soil					
3	Waste dump site					
4	Mineral storage					
5	Infrastructure workshop, administrative building etc.					
6	Roads					
7	Railways					
8	Tailing pond					
9	Effluent Treatment Plant					
10	Mineral Separation Plant					
11	Township area					
12	Others (to specify)					
13	Grand Total					

14.3.13	Financial assurance details -

List of the Plans and Sections to be submitted with Mining Plan	
i)	Key Plan on 1:50,000 scale as provided in Rule 32(5)(a) of MCDR 2017
ii)	Location Plan of the mine showing distance from the nearest railhead/roadhead/sea port/air port
iii)	Lease map-- (In case of fresh grant of mining lease a precise area demarcation map demarcating with survey nos./khasra nos. as well as longitude & latitude on survey of India, toposheets/maps to be indicated. Details of recommended area to be given with geo-referenced co-ordinates (to be certified by State Govt. preferably with ground control points).In case of existing leases lease plan as provided by the state govt. showing location of the lease. If the lease area is not surveyed with DGPS, then the competent authority of the State Government should certify its co-ordinates.
iv)	Surface Plan as provided in Rule 32(1) (a) of MCDR 2017.
v)	Surface Geological Plans and Sections as provided in Rule 32(1) (b), (c) and (d) of MCDR 2017.
vi)	An Underground Plan as provided in Rule 32(1)(e) of MCDR 2017.(For Underground Mines)
vii)	Individual year wise development plans & sections (in case of 'A' category mines)/ Composite development plans & year wise sections (in case of 'B' Category mines)
viii)	Environment Plan as provided in Rule 32(5) (b) of MCDR 2017.
ix)	Conceptual plan.
x)	A Financial area Assurance plan may show only outlines of the existing working, dumps, stacks, etc. covering all the items under the financial assurance table and at the end of 5 year plan period in different colour for the purpose of computation of the areas required to be used in that period to verify the financial assurance including areas considered as reclaimed and rehabilitated.

List of documents to be Annexed	
1	In case of grant of ML Letter of Intent of State Government / Copy of lease deed in case of existing mine.
2	Documents in support of ownership of land/Surface rights.
3	Copy of last approval of MP/SOM letter.
4	Few photographs showing Land use of the lease area/applied area, environmental status of the area/Ground Control Points/Lease Boundary Pillars.
5	Certificate of registration of the company and memorandum of the association.
6	Photo Identity Card of Lessee/Nominated Owner with permanent address proof
7	Copy of Board Resolution for declaration of nominated owner as per Mines Act 1952.
8	List of members of Board of Directors.
9	In case of Review of Mining Plan/Modified Mining Plan copies of violation letters issued by Indian Bureau of mines and its compliance thereof.
10	Copy of Feasibility report as per MEMC Rules 2015
11	Copies of Form 'submitted under Rule 47 of MCDR 2017 wherever applicable
12	Copies of analysis report from NABL accredited laboratory or similar accredited laboratory and third party NABL accredited lab or Govt. lab etc. (wherever applicable)
13	Copy of Financial Assurance
14	Details of other leases held by the lessee.
15	Any other documents in support of the contents of Mining Plan

Note:- All the Certificates/ Consents/Undertakings and Annexures to be enclosed at the end of the text part/Mining Plan format.

CHAPTER-VI: FINAL MINE CLOSURE PLAN

6.1 Regulatory background

Sub-section (1) of Section 18 of the Mines and Minerals (Development and Regulation) Act 1957 empowers Central Government to make such rules as may be necessary for the conservation and systematic development of minerals in India and for the protection of environment by preventing or controlling any pollution which may be caused by prospecting or mining operations. Apart from other matters such Rules can provide guidelines for the disposal or discharge of waste slime or tailings arising from any mining or metallurgical operations carried out in a mine; and the manner in which and the authority by which directions may be issued to the owners of any mine to do or refrain from doing certain things in the interest of conservation or systematic development of minerals or for the protection of environment by preventing or controlling pollution which may be caused by prospecting or mining operations

Mines and Minerals (Development and Regulation) Amendment Act'2015

1. As per Section 8A (6), the period of lease granted before the date of commencement of the MMDR Amendment Act'2015 i.e. 12th January,2015, where the mineral is used for other than captive purpose, shall be extended and be deemed to have been extended upto a period ending on 31st March,2020 with effect from the date of expiry of the period of renewal last made or till the completion of renewal period, if any, or a period of fifty years from the date of grant of such lease, whichever is later subject to the condition that all the terms and conditions of the lease have been complied with.

Mineral Conservation and Development Rules'2017

- 1.** As per Rule 21(4), the holder of a ML shall not abandon a mine unless a FMCP duly approved by the competent authority, is implemented, and for this purpose, the lessee shall be required to obtain a certificate from the authorized officer, as the case may be, to the effect that protective, reclamation and rehabilitation work in accordance with the FMCP or with such modifications as approved by the competent authority have been carried out before abandonment of mine.
- 2.** Rule 22(3) states that 'every holder of a mining lease shall take steps to prepare mine closure plans as per the guidelines and format given by the Indian Bureau of Mines from time to time'.
- 3.** Rule 24 of MCDR provides that the mining lease holder is required to submit a final mine closure plan to the competent authority for approval two years prior to the proposed closure of the mine. Further, the competent authority is required to convey his approval or refusal of the final mine closure plan within ninety days of the date of its receipt to the holder of the mining lease.
- 4.** Rule 25 of MCDR 2017 allows for modifications in the mine closure plan. In this case the lease holder desirous of seeking modifications in the approved mine closure plan, is required to submit to the competent authority for approval setting forth the intended modifications and explaining the reasons for such modifications. The competent authority may approve the modifications or approve with such alterations as he may consider expedient.
- 5.** As enumerated in Rule 26 of MCDR 2017 it is the responsibility of holder of a mining lease to ensure that the protective measures including reclamation and rehabilitation works have been carried out in accordance with the approved mine closure plan or with such modifications as approved by the competent authority. Further the holder of a mining lease

is require to submit to the competent authority a yearly report as per the format specified by the Indian Bureau of Mines, before 1st day of July every year setting forth the extent of protective and rehabilitative works carried out as envisaged in the approved mine closure plan, and if there is any deviation, reasons thereof.

Minerals (Other than Atomic and Hydro-Carbon Energy Minerals) Concession Rule 2016 (In short MCR 2016):

1. As per Rule 21(2) (a), lessee is required to submit documents to evidence of implementation of the approved FMCP for surrender of mining lease.

6.2 GUIDELINE/ FORMAT OF FINAL MINE CLOSURE PLAN

Preamble :

Mine closure encompasses rehabilitation process as an ongoing programme designed to restore physical, chemical and biological quality disturbed by the mining to a level acceptable to all concerned. It must aim at leaving the area in such a way that rehabilitation does not become a burden to the society after mining operation is over. It must also aim to create as self-sustained ecosystem.

Final mine closure plan as per statute, shall be submitted for approval to the competent authority (as given in **Annexure-IV**) two years prior to the proposed closure. This period of two years is reckoned as preparatory period for final mine closure operations. Approval / Disapproval of FMCP should be done as per the format enclosed (**Annexure-XIV & XV**).

For the leases expiring on 31st March,2020 in terms of Section 8A(6) of MMDR Amendment Act'2015, suitable FMCP is required to be submitted on or before 31st March 2018 so that the proposals given in the FMCP can be implemented in true spirit upto the expiry of lease period. Guidelines for the same have been given separately.

Therefore, all proposals for activities which have to be carried out after cessation of mining and mineral processing operations, shall be included in the final mine closure plan. The final mine closure plan will thus be a separate document with detailed chapters supported with plans and sections as per guidelines given below:-

1. Introduction:

The name of the lessee, the location and extent of lease area, the type of lease area (forest, non-forest etc.), the present land use pattern, the method of mining and mineral processing operations, may be given.

1.1 Reasons for closure:

The reasons for closure of mining operations in relation to exhaustion of mineral, lack of demand, uneconomic operations, natural calamity, directives from statutory organization or court etc. shall be specified by lessee/nominated owner. A copy of the resolution of the Board of Directors or any other appropriate administrative authority as the case may be on the decision of closure of mine may be submitted.

1.2 Statutory obligations:

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, directives issued by the Indian Bureau of Mines, conditions imposed by the Ministry of Environment and Forests, State of Central Pollution Control Board or by any other organization describing the nature of conditions and compliance position thereof may be indicated here (the copies of relevant documents may be attached as Annexure).

1.3 Closure plan preparation:

The FMCP shall be prepared by a person qualified in terms of Rule 15 of MCR'2016. The names and addresses of the applicant and qualified person who prepared the Mine Closure Plan shall be furnished. The relevant consents/ undertakings/annexures shall be submitted as per the format given in the Chapter-V of this document. A copy of the resolution of the Board of Directors or any other appropriate administrative authority as the case may be on the decision of closure of mine may be submitted.

2. Mine Description:

2.1 Geology:

Briefly describe the topography and general geology indicating rock types available, the Chemical constituents of the rocks / minerals including toxic elements if any, at the mine site.

2.2 Reserves/Resources:

Indicate the Total mineral resources available UNFC category wise in the lease area estimated in the last approved mining plan document.(Review/Updation/Modification)/along with the depletion and balance mineral reserves in the proposed mine closure including its quality available (for final mine closure plan only). The mineralized part may be shown distinctly in the plans and the area should be secured for any future considerations (no backfilling/dumping of waste should be done on mineralized area). Alongwith in-situ, if any, mineralized dump, mineral rejects stack is available at the mine site, it should also be secured and quantum and grade for the mineral in the dump/stack should be mentioned. (Note: - For estimation of grade and quantum of reserves/resources, MEMC Rules'2015 should be referred). No further dumping on the potential mineralized area should be allowed.

2.3 Mining Method:

Describe in brief the mining method followed to win the mineral, extent of mechanization, Mining machinery deployed, production level prior to closure etc.

2.4 Mineral Beneficiation:

Whether Mechanical or Manual, describe in brief the mineral beneficiation practices if any, indicating the process description in short. Indicate discharge details of any tailings / middlings and their disposal / utilisation practice etc. The location of any tailings/middlings dumps available in the lease or part thereof should be shown on relevant plates. In case of part FMCP, if there is any proposal for shifting these dumps to the retained part of the lease area, it may be demarcated and informed.

3. Review of Implementation of Mining Plan including five years Progressive Closure Plan upto final closure of mine:

Indicate in detail the various proposals committed with special emphasis on the proposals for reclamation and rehabilitation and protection of environment in the approved Mining Plan including five years Progressive Closure Plan upto the closure of mine vis-a-vis their status of implementation. Highlight the areas, which might have been contaminated by mining activities and type of contaminants that might be found there. The reasons for deviation from the proposals if any with corrective measures taken may also be given. Cumulative backlog in the implementation of the PMCP proposals upto the final closure stage should be clearly mentioned alongwith any statutory obligations in the form of any conditions imposed through the clearances granted by MoEF (such as: total area to be afforested as mentioned in the EC/FC and cumulative afforestation done till final closure stage).

4. Closure Plan:

4.1 Baseline Information as given in the Mining Plan:

Describe the baseline information about the area, its topography, flora and fauna etc. as given in the Mining Plan for grant of ML/ as per the historical data about the area (for the cases granted prior to introduction of Mining Plan)

4.2 Mined-Out Land:

Describe the proposals to be implemented for reclamation and rehabilitation of mined-out land including the manner in which the actual site of the pit will be restored for future use. The proposals may be supported with relevant plans and sections depicting the method of land restoration / reclamation / rehabilitation.

4.3 Water Quality Management:

Describe in detail the existing surface and ground water bodies available in the lease areas and the measures to be taken for protection of the same including control of erosion, sedimentation, siltation, water treatment, diversion of water courses , if any, measures for protection of contamination of ground water from leaching etc. Quantity and quality of surface water bodies may

also be indicated and corrective measures proposed to meet the water quality conforming the permissible limits may also be described. Report of hydrological study carried out in the area may also be submitted. The water balance chart may be given. If there is potential of Acid Mine Drainage the treatment method may be given to neutralize the acidity of water.

4.4 Air Quality Management:

Describe the existing air quality status. The mitigative measures to be taken for prevention of pollution of air may be described.

4.5. Waste Management:

Describe the type, quality and quantity of overburden, mineral reject etc. available and their disposal practice. If no utilization of waste material is proposed, the manner in which the waste material will be stabilized may be described. The protective measures to be taken for prevention of siltation, erosion and dust generation from these waste materials may also be described. If toxic and hazardous elements are present in the waste material, the protective measures to be taken for prevention of their dispersal in the air environment, leaching in the surface and ground water etc., may be described.

4.6 Top Soil Management:

The stacking of top soil available at the site and its utilization may be described.

4.7 Tailing Dam Management:

The steps to be taken for protection and stability of tailing dam, stabilization of tailing material and its utilization, periodic desilting, measures to prevent water pollution from tailings etc., arrangement for surplus water overflow alongwith detail design, structural stability studies, the embankment seepage loss into the receiving environment and ground water contaminant, if any, may be given.

4.8 Infrastructure:

The existing infrastructural facilities available such as roads, aerial ropeways, conveyer belts, railways, power lines, buildings & structures, water treatment plant, transport, water supply sources

in the area etc. and their future utilization may be evaluated on case to case basis. If retained, the measures to be taken for their physical stability and maintenance may be described. If decommissioning proposed, dismantling and disposal of building structures, support facilities and other infrastructure like electric transmission line, water line, gas pipeline, water works, sewer line, telephone cables, underground tanks, transportation infrastructure like roads, rails, bridges, culverts etc., electrical equipment and infrastructures like electric cables, transformers to be described in connection with restoring land for further use.

4.9 Disposal of Mining Machinery:

The decommissioning of mining machineries and their possible post mining utilization, if any, may be described.

4.10 Safety and Security:

Explain the safety measures implemented to prevent access to surface openings, excavations etc., and arrangements proposed during the mine abandonment plan and upto the site being opened for general public may be described.

4.11 Disaster Management and Risk Assessment:

This may deal with action plan for high risk incidences like landslides, subsidence flood, inundation in underground mines, fire, seismic activities, tailing dam failure etc. and emergency plan proposed for quick evacuation, ameliorative measures to be taken etc. The capability of lessee to meet such eventualities and the assistance to be required from the local authority may also be described.

4.12 Care and maintenance during temporary discontinuance:

In case of leases not granted through auction and lease period expiring beyond 2020 and having life of mine more than 5 years then for every five yearly review (as given in the mining plan), an emergency plan for the situation of temporary discontinuance or incomplete programme due to court order or due to statutory requirements or any other unforeseen circumstances, may include a plan indicating measures of care, maintenance and monitoring of status of unplanned discontinued mining operations expected to re-open in near future. This may detail item wise status monitoring and maintenance with periodicity and objective.

5. Economic Repercussions of closure of mine and manpower retrenchments:

Manpower retrenchment, compensation to be given, socio-economic repercussions and remedial measures consequent to the closure of mines may be described, specifically stating the following:-

5.1 Number of local residents employed in the mine, status of the continuation of family occupation and scope of joining the occupation back.

5.2 Compensation given or to be given to the employees connecting with sustenance of himself and their family members.

5.3 Satellite occupations connected to the mining industry - number of persons engaged therein - continuance of such business after mine closes.

5.4 Continued engagement of employees in the rehabilitated status of mining lease area and any other remnant activities.

5.5 Envisaged repercussions on the expectation of the society around due to closure of mine.

6. Time Scheduling for abandonment:

The details of time schedule of all abandonment operations as proposed in para 4 may be described here. The manpower and other resources required for completion of proposed job may be described. The schedule of such operations may also be supplemented by PERT (Programme Evaluation & Review Technique), Bar chart etc.

7. Abandonment Cost:

Cost to be estimated based on the activities required for implementing the protective and rehabilitation measures including their maintenance and monitoring programme.

8. Financial Assurance:

The financial assurance can be submitted in different forms as stated in Rule 27(1) of Mineral Conservation and Development Rules, 2017. In the mine closure plan, the manner in which financial assurance has been submitted and its particulars have to be indicated.

9. Plans and Sections to be enclosed:

All the applicable (opencast or underground as the case may be) statutory plans required in terms of Rule 32 of MCDR'2017 alongwith a plan showing the proposals for final closure on preferably 1:2000 scale, fulfilling the requirements of Rule 31 and prepared in terms of Rule 34 of the MCDR'2017 should be enclosed with the document.

6.3 Certificate to be issued under Rule 21(4) by the Authorized Officer

The holder of a ML shall not abandon a mine unless a FMCP duly approved by the competent authority, is implemented, and for this purpose, the lessee shall be required to obtain a certificate from the authorized officer, as the case may be, to the effect that protective, reclamation and rehabilitation work in accordance with the FMCP or with such modifications as approved by the competent authority have been carried out before abandonment of mine.

Except for the part surrendered area (surrendered as it is without disturbing the land) the certificate for implementation of FMCP proposals should be granted at least 3 years after the final closure; ensuring the self-sustainability of the protective, reclamation and rehabilitation work done in the area. For the undisturbed part of the lease area surrendered as it is which has not been disturbed through any mining and allied activities, the certificate may be granted immediately after verifying the same on the grounds post final closure. Certificate should be issued in the format enclosed (**Annexure-XVI**).

6.4 Annexures:

List of documents to be Annexed	
1	Copy of lease deed
2	Documents in support of ownership of land/Surface rights
3	Copy of last approval of MP/SOM letter
4	Few photographs showing Land use of the lease area/applied area, environmental status of the area/Ground Control Points/Lease Boundary Pillars
5	Certificate of registration of the company and memorandum of the association
6	Photo Identity Card of Lessee/Nominated Owner with permanent address proof
7	Copy of Board Resolution for declaration of nominated owner as per Mines Act 1952
8	List of members of Board of Directors
9	Copies of violation letters issued by Indian Bureau of Mines or statutory obligations issued by any other authority and compliance thereof
10	Copy of Financial Assurance
11	Any other documents in support of the contents of Final Mine Closure Plan

6.5 Guidelines for Final Mine Closure Plan preparation for the leases expiring on 31st March, 2020 in terms of Section 8A (6) of MMDR Amendment Act'2015

FMCP in respect of leases expiring on 31st March, 2020 should be submitted separately on or prior to 31st March, 2018 apart from the Mining Plan document which may be in existence for the lease area. These guidelines shall be applicable only for those leases where mineral has not been exhausted and the area may be available for auction in future. For the leases where mineral has been completely exhausted, guidelines for preparation of FMCP as given under 6.2 to 6.4 should be followed. All the proposals/activities (production/waste or overburden handling/mineral rejects) for last two years (2018-19 and 2019-20) in the FMCP should be same as given in the approved Mining Plan document valid upto 31.03.2020.

The proposals in the FMCP prepared for such lease areas should be as per the guidelines enumerated below:-

1.Introduction:

The name of the lessee, the location and extent of lease area, the type of lease area (forest, non-forest etc.), the present land use pattern, the method of mining and mineral processing operations, may be given in brief.

1.1 Statutory obligations:

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, directives issued by the Indian Bureau of Mines, conditions imposed by the Ministry of Environment and Forests, State of Central Pollution Control Board or by any other organization describing the nature of conditions and compliance position thereof may be indicated here (the copies of relevant documents may be attached as Annexure).

1.2 Closure plan preparation:

The FMCP shall be prepared by a person qualified in terms of Rule 15 of MCR'2016. The names and addresses of the applicant and qualified person who prepared the Mine Closure Plan shall be furnished. The relevant consents/ undertakings/annexures shall

be submitted as per the format given in the Chapter-V of this document.

2. Lease Area Description:

2.1 Geology:

Briefly describe the topography and general geology indicating rock types available, the Chemical constituents of the rocks / minerals including toxic elements if any, at the mine site.

2.2 Reserves/Resources:

Indicate the Total mineral reserves/resources available UNFC category wise in the lease area estimated in the last approved mining plan document (Review/Updation/Modification along with the depletion and balance mineral reserves in the proposed mine closure including its quality available (for final mine closure plan only). The mineralized part may be shown distinctly in the plans and the area should be secured for any future considerations (no backfilling/dumping of waste should be done on mineralized area). Alongwith in-situ, if any, mineralized dump, mineral rejects stack is available at the mine site, it should also be secured and quantum and grade for the mineral in the dump/stack should be mentioned. (Note: - For estimation of grade and quantum of reserves/resources, MEMC Rules'2015 should be referred). No further dumping on the potential mineralized area shall be allowed. Proportionate exploration over the potentially mineralized area in terms of Rule 12 (4) of MCDR'2017 should be carried out by the lessee and results of such exploration carried out should be submitted to Indian Bureau of Mines in Form 'J' in terms of Rule 48 of MCDR'2017 within 30 days of completion of such exploration or expiry of lease, whichever is earlier. Alongwith Form 'J', a Geological plan of the lease area should be submitted demarcating the area under different 'G' axis (G1/G2/G3/G4/Non-Mineralized). It may also be seen that entire mineralized area is explored under G1 or G2 level and such area has been secured in such a way that mine can restart operations by minimum developmental work after re-allotment of mining lease.

2.3 Mining:

Describe in brief the mining method followed to win the mineral, extent of mechanization, Mining machinery deployed, production level prior to closure etc. Production proposals prior to final closure i.e., expiry of lease should be in commensurate with the reserves established under 111, 121 and 122 categories of UNFC. It should be ensured that mining proposals including enhancement of production approved under Rule 17(3) of MCR'2016, if any, are scientific in nature by ensuring that stripping ratio (ore to overburden ratio) is not changed exorbitantly.

2.4 Mineral Beneficiation:

Whether Mechanical or Manual. Describe in brief the mineral beneficiation practices if any, indicating the process description in short. Indicate discharge details of any tailings / middlings and their disposal / utilisation practice etc. The location of any tailings/middlings dumps available in the lease area should be shown on relevant plates.

4. Closure Plan:

4.1 Baseline Information as given in the Mining Plan

Describe the baseline information about the area, its topography, flora and fauna etc. as given in the Mining Plan for grant of ML/ as per the historical data about the area (for the cases granted prior to introduction of Mining Plan)

4.1 Mined-Out Land:

Describe the proposals to be implemented for reclamation and rehabilitation of mined-out land only for those excavations, which have been proved through exploration for no underlying deposits (as referred in item 2.4) including the manner in which the actual site of the pit will be restored for future use. The proposals may be supported with relevant plans and sections depicting the method of land restoration / reclamation / rehabilitation.

4.2 Water Quality Management:

Describe in detail the existing surface and ground water bodies available in the lease areas and the measures to be taken for protection of the same including control of erosion, sedimentation, siltation, water treatment, diversion of water courses , if any,

measures for protection of contamination of ground water from leaching etc. Quantity and quality of surface water bodies may also be indicated and corrective measures proposed to meet the water quality conforming the permissible limits may also be described. Report of hydrological study carried out in the area may also be submitted. The water balance chart may be given. If there is potential of Acid Mine Drainage the treatment method may be given to neutralize the acidity of water. Make of water in the lease area based on the average rainfall for last 5 years and catchment area should be informed.

4.3 Air Quality Management:

Describe the existing air quality status. The mitigative measures to be taken for prevention of pollution of air may be described.

4.4. Waste Management:

Describe the type, quality and quantity of overburden, mineral reject etc. available and their disposal practice. If no utilization of waste material is proposed, the manner in which the waste material will be stabilized may be described. The protective measures to be taken for prevention of siltation, erosion and dust generation from these waste materials may also be described. If toxic and hazardous elements are present in the waste material, the protective measures to be taken for prevention of their dispersal in the air environment, leaching in the surface and ground water etc., may be described. As far as possible, the dumps should be kept outside the pit limits for the closure period since the mining operation in these leases are continuing till 31.03.2020.

4.5 Top Soil Management:

The stacking of top soil available at the site and its utilization may be described. During the closure period, top soil may be utilized for plantation to stabilize the dumps.

4.6 Tailing Dam Management:

The steps to be taken for protection and stability of tailing dam, stabilization of tailing material and its utilization, periodic desilting, measures to prevent water pollution from tailings etc., arrangement for surplus water overflow alongwith detail design, structural stability studies, the embankment seepage loss into the

receiving environment and ground water contaminant, if any, may be given alongwithmitigative measures to avoid any ground water contamination out of the tailings.

4.7 Infrastructure:

The existing infrastructural facilities available such as roads, aerial ropeways, conveyer belts, railways, power lines, buildings & structures, water treatment plant, transport, water supply sources the permanent civil structures, plants, ropeways, belt conveyors in the area etc., and their future utilization may be evaluated on case to case basis.

4.8 Disposal of Mining Machinery:

The decommissioning of mining machineries and their possible post mining utilization, if any, to be described.

4.9 Safety and Security:

Explain the safety measures implemented to prevent access to surface openings, excavations etc., and arrangements proposed during the mine abandonment plan and upto the site being opened for general public may be described. The lessee should ensure fencing of any excavation endangering fall of persons/cattles etc.in terms of Rule 26 of MCDR'2017.

4.10 Disaster Management and Risk Assessment:

This may deal with action plan for high risk incidences like landslides, subsidence flood, inundation in underground mines, fire, seismic activities, tailing dam failure etc. and emergency plan proposed for quick evacuation, ameliorative measures to be taken etc. The capability of lessee to meet such eventualities and the assistance to be required from the local authority may also be described.

5. Economic Repercussions of closure of mine and manpower retrenchments:

Manpower retrenchment, compensation, if any, to be given in consultation with local district administration, socio-economic repercussions and remedial measures consequent to the closure of mines may be described, specifically stating the following:-

5.1 Number of local residents employed in the mine, status of the continuation of family occupation and scope of joining the occupation back.

5.2 Compensation, if any, given or to be given to the employees connecting with sustenance of himself and their family members.

5.3 Satellite occupations connected to the mining industry - number of persons engaged therein - continuance of such business after mine closes.

5.4 Continued engagement of employees in the rehabilitated status of mining lease area and any other remnant activities.

5.5 Envisaged repercussions on the expectation of the society around due to closure of mine.

7. Time Scheduling for abandonment:

The details of time schedule of all abandonment operations as proposed in para 4 may be described here. The manpower and other resources required for completion of proposed job may be described. The schedule of such operations may also be supplemented by PERT (Programme Evaluation & Review Technique), Bar chart etc. for the two years closure period.

8. Abandonment Cost:

Cost to be estimated based on the activities required for implementing the protective and rehabilitation measures including their maintenance and monitoring programme.

9. Financial Assurance:

Details of Financial Assurance submitted under Rule 27 of MCDR'2017 as given in the last approved/valid Mining Plan document (copy of FA to be enclosed).

10. Plans and Sections to be enclosed:

All the applicable (opencast or underground as the case may be) statutory plans required in terms of Rule 32 of MCDR'2017 alongwith a plan showing the year-wise proposals for two years of final closure period on preferably 1:2000 scale, fulfilling the

requirements of Rule 31 and prepared in terms of Rule 34 of the MCDR'2017 should be enclosed with the document.

6.6 Certificate to be issued under Rule 21(4) by the Authorized Officer

The holder of a ML shall not abandon a mine unless a FMCP duly approved by the competent authority, is implemented, and for this purpose, the lessee shall be required to obtain a certificate from the authorized officer, as the case may be, to the effect that protective, reclamation and rehabilitation work in accordance with the FMCP or with such modifications as approved by the competent authority have been carried out before abandonment of mine.

The implementation of FMCP proposals shall be checked through periodic inspection preferably at an interval of 6 months and a brief report on implementation status on FMCP proposals should be submitted within 7 days to the RCOM/DCOM(I/C) endorsing a copy to COM of respective zones and CCOM, IBM. Any shortfall observed during the inspection shall be communicated forthwith to the lessee for making up the implementation shortfall within the next three months. Last inspection (preferably joint inspection done by a Mining Engineer and a Geologist alongwith state government officer) before issue of closure certificate should be done preferably in the last month of lease expiry i.e., March, 2020 and the certificate, in the format enclosed as **Annexure-XVI**, should be issued within 15 days from the date of expiry of lease i.e., 15.04.2020 after reasonably satisfying the implementation proposals made in the FMCP.

In case of defaulting lessees in respect of timely implementation of approved FMCP proposals observed at the end of 3rd inspection i.e., inspection done in between April'2019 to September'2019, a notice for forfeiture of FA in terms of Rule 27(4) of MCDR'2017 shall be issued to the lessee by 31.10.2019. Non-compliance of the proposals based on the report of the last inspection done in March, 2020 will lead to non-issue of the certificate and the Financial Assurance is liable for forfeiting in terms of Rule 27(5) of MCDR'2017 and also liable for legal actions as per Rule 62 of the said rules. Suitable actions in terms of Rule 27(6) may be initiated within 3 months of forfeiture of FA by the concerned RCOM/DCOM (I/C).

6.7 Annexures:

List of documents to be Annexed	
1	Copy of lease deed
2	Documents in support of ownership of land/Surface rights
3	Copy of last approval of MP/SOM letter
4	Few photographs showing Land use of the lease area/applied area, environmental status of the area/Ground Control Points/Lease Boundary Pillars
5	Certificate of registration of the company and memorandum of the association
6	Photo Identity Card of Lessee/Nominated Owner with permanent address proof
7	Copy of Board Resolution for declaration of nominated owner as per Mines Act 1952
8	List of members of Board of Directors.
9	Copies of violation letters issued by Indian Bureau of Mines or statutory obligations issued by any other authority and compliance thereof
10	Copy of Feasibility report as per MEMC Rules 2015
11	Copies of Form 'I' and 'J' submitted under Rule 47 & 48 of MCDR 2017 wherever applicable
12	Copies of analysis report from NABL accredited laboratory or similar accredited laboratory and third party NABL accredited lab or Govt. lab etc. (wherever applicable)
13	Copy of Financial Assurance
15	Any other documents in support of the contents of Final Mine Closure Plan

ANNEXURES

AUTHORISATION UNDER RULE 5(2) OF MM (R&D) ACT 1957

THE GAZETTE OF INDIA

EXTRAORDINARY

PART II – SECTION 3 – SUB SECTION (II)

PUBLISHED BY AUTHORITY

No.208 New Delhi, Tuesday, April 28, 1987 / Visakha 8, 1909

Ministry of Steel and Mines
(Department of Mines)
New Delhi, the 28th April 1987

ORDERS

S.O.445(E) : In exercise of the powers conferred by clause (a) of sub section (1)of section 26 of the Mines & Minerals (Regulation & Development) Act 1957 (67 of 1957), the Central Government hereby directs that the powers under clause (b) of sub section (2)of section 5 of the said Act, exercised by it, shall also be exercised by the Controller General, Chief Controller of Mines, Controller of Mines and Regional Controller of Mines of Indian Bureau of Mines.

(F.No.5(1)/87-M.VI)
T.N.Srivastava, Jt.Secy.

**THE GAZETTE OF INDIA
EXTRAORDINARY
PART II—Section 3—Sub-section (ii)
PUBLISHED BY AUTHORITY
No. 1272] NEW DELHI, MONDAY, MAY 23, 2016/JYAISTHA 2, 1938**

ORDER

Nagpur, the 18th May, 2016

S.O. 1857(E).—In pursuance of clause (b) of sub-section (2) of Section 5 of Mines and Minerals(Development and Regulation) Act, 1957 (67 of 1957) (As amended up to 27th March 2015) and by virtue of powers vested in the Controller General, IBM under Rule 13(1)(a) of Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016, I hereby authorize the (1) Regional Controller of Mines &(2) Deputy Controller of Mines, in-charge of the Regional offices/Sub-Regional offices of Mineral Development and Regulation Division of Indian Bureau of Mines; to exercise the power specified under Rule16 and Rule 17 of Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules,2016, for approval of Mining Plans.

This order shall come into force with immediate effect from the date of notification in the Official Gazette of India.

[F. No. T-43004/CGBM/MM (DR)/2015]
R. K. SINHA, Controller General

**THE GAZETTE OF INDIA
EXTRAORDINARY
PART II—Section 3—Sub-section (ii)
PUBLISHED BY AUTHORITY
No. 1272] NEW DELHI, MONDAY, MAY 23, 2016/JYAISTHA 2, 1938**

**MINISTRY OF MINES
(Indian Bureau of Mines)
ORDER**

Nagpur, the 18th May, 2016

S.O. 1856(E).—In pursuance of clause (b) of sub-section (2) of Section 5 of Mines and Minerals(Development and Regulation) Act, 1957 (67 of 1957) (As amended up to 27th March 2015) and in accordance to the provision made in the Rule 16(2) of Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016 Mining Plan document accompanied by a non-refundable fee of Rs. 25000/- (Rupees Twenty Five Thousand only) per Sq. Km. or part thereof shall be submitted to the Indian Bureau of Mines for approval.

This order shall come into force with immediate effect from the date of notification in the Official Gazette of India.

[F. No. T-43004/CGBM/MM (DR)/2015]
R. K. SINHA, Controller General



भारत का राजपत्र The Gazette of India

असाधारण
EXTRAORDINARY
भाग III—खण्ड 1
PART III—Section 1
प्राधिकार से प्रकाशित
PUBLISHED BY AUTHORITY

सं. 07] नई दिल्ली, बुधवार, मई 31, 2017/ज्येष्ठ 10, 1939
No. 07] NEW DELHI, WEDNESDAY, MAY 31, 2017/JYAISTHA 10, 1939

खान मंत्रालय

अधिसूचना

नागपुर, 11 मई, 2017

सं. टी-43010/सी.जी.बी.एम.2014.—खनिज संरक्षण एवं विकास नियमावली, 2017 के अंतर्गत कार्य-निष्पादन हेतु 'प्राधिकृत अधिकारी' के रूप में भारतीय खान ब्यूरो के अधिकारियों को प्राधिकृत करने के लिए खनिज संरक्षण एवं विकास नियमावली, 2017 के नियम 3 (1)(ग) के अंतर्गत मुझे प्रदत्त शक्तियों का उपयोग करते हुए मैं एतद-द्वारा खनिज संरक्षण एवं विकास नियमावली, 2017 एवं उस नियम /उन नियमों से संबंधित मामलों के संबंध में कार्रवाई करने के लिए 'प्राधिकृत अधिकारी' के रूप में भारतीय खान ब्यूरो के अधिकारियों को निम्नानुसार प्राधिकृत करता हूँ।

क्रम सं.	प्राधिकृत अधिकारी	एम.सी.बी.आर., 2017 के अंतर्गत नियम/नियमों हेतु प्राधिकृत
1.	मुख्य खान नियंत्रक	5(1), 5(2), 8(1), 8(2), 19(3), 48(1), 54(घ), 59, 63(2), 64, 65(3), 67, 74
2.	खान नियंत्रक	5(1), 5(2), 8(1), 8(2), 19(3), 30(2), 30(3), 30(4), 54(घ), 59, 67, 74
3.	मुख्य खनन भूविज्ञानी	5(1), 5(2), 6, 7, 8(1), 8(2), 9(1), 9(3), 9(5), 19(3), 47, 48(1), 54(घ), 59, 63(2), 67, 74
4.	मुख्य खनिज अर्थशास्त्री	49, 50, 51, 52
5.	क्षेत्रीय खान नियंत्रक	8(1), 8(2), 9(3), 9(5), 19(3), 20(1), 21(1), 21(2), 21(3), 21(4), 27(2), 27(3), 27(4), 27(5), 27(6), 28(1), 28(2), 29, 30(2), 30(3), 33, 35(3), 46(ग), 47, 49, 50, 54(घ), 59, , 67, 74

6.	अधीक्षण खनन भूविज्ञानी	8(1), 8(2), 19(3), 35(3), 54(च), 59, 74
7.	उप-खान नियंत्रक (क्षेत्रीय कार्यालय के प्रभारी)	4, 5(1), 5(2), 6, 7, 8(1), 8(2), 9(1), 9(3), 9(5), 19(3), 20(1), 21(1), 21(2), 21(3), 21(4), 27(2), 27(3), 27(4), 27(5), 27(6), 28(1), 28(2), 29, 30(2), 30(3), 33, 35(2), 35(3), 35(4), 45(5), 46(ग), 47, 49, 50, 51, 52, 54(च), 59, 67
8.	उप खान नियंत्रक	8(1), 8(2), 19(3), 35(3), 54(च), 59, 74
9.	क्षेत्रीय खनन भूविज्ञानी	8(1), 8(2), 19(3), 35(3), 54(च), 59, 74
10.	वरिष्ठ सहायक खान नियंत्रक	8(1), 8(2), 19(3), 35(3), 54(च), 59, 74
11.	वरिष्ठ खनन भूविज्ञानी	8(1), 8(2), 19(3), 35(3), 54(च), 59, 74
12.	सहायक खान नियंत्रक	8(1), 8(2), 19(3), 35(3), 54(च), 59, 74
13.	कनिष्ठ खनन भूविज्ञानी	8(1), 8(2), 19(3), 35(3), 54(च), 59, 74
14.	सहायक खनन अभियंता	8(1), 8(2), 19(3), 54(च), 59, 74
15.	सहायक खनन भूविज्ञानी	8(1), 8(2), 19(3), 54(च), 59, 74

यह आदेश तत्काल प्रभाव से लागू होगा।

रंजन सहाय, महानियंत्रक, भारतीय खान ब्यूरो

MINISTRY OF MINES

NOTIFICATION

Nagpur, the 11th May, 2017

No. T-43010/CGBM/2014.—By virtue of powers vested in me under Rule 3(1)(c) of Mineral Conservation and Development Rules, 2017 to authorize officers of Indian Bureau of Mines as “Authorized Officer” to perform functions under Mineral Conservation and Development Rules, 2017, I hereby authorize the officers of Indian Bureau of Mines as “Authorized Officer” to take action in respect of Mineral Conservation and Development Rules, 2017 and the matters relating to rule/rules as mentioned below :—

Sl. No.	Authorised officer	Authorised for Rule(s) under MCDR, 2017
1	Chief Controller of Mines	5(1), 5(2), 8(1), 8(2), 19(3), 48(1), 54(d), 59, 63(2), 64, 65(3), 67, 74
2	Controller of Mines	5(1), 5(2), 8(1), 8(2), 19(3), 30(2), 30(3), 30(4), 54(d), 59, 67, 74
3	Chief Mining Geologist	5(1), 5(2), 6, 7, 8(1), 8(2), 9(1), 9(3), 9(5), 19(3), 47, 48(1), 54(d), 59, 63(2), 67, 74
4	Chief Mineral Economist	49, 50, 51, 52
5	Regional Controller of Mines	8(1), 8(2), 9(3), 9(5), 19(3), 20(1), 21(1), 21(2), 21(3), 21(4), 27(2), 27(3), 27(4), 27(5), 27(6), 28(1), 28(2), 29, 30(2), 30(3), 33, 35(3), 46(c), 47, 49, 50, 54(d), 59, 67, 74
6	Superintending Mining Geologist	8(1), 8(2), 19(3), 35(3), 54(d), 59, 74
7	Deputy Controller of Mines (Incharge of Regional Office).	4, 5(1), 5(2), 6, 7, 8(1), 8(2), 9(1), 9(3), 9(5), 19(3), 20(1), 21(1), 21(2), 21(3), 21(4), 27(2), 27(3), 27(4), 27(5), 27(6), 28(1), 28(2), 29, 30(2), 30(3), 33, 35(2), 35(3), 35(4), 45(5), 46(c), 47, 49, 50, 51, 52, 54(d), 59, 67
8	Deputy Controller of Mines	8(1), 8(2), 19(3), 35(3), 54(d), 59, 74

9	Regional Mining Geologist	8(1), 8(2), 19(3), 35(3), 54(d), 59, 74
10	Senior Assistant Controller of Mines	8(1), 8(2), 19(3), 35(3), 54(d), 59, 74
11	Senior Mining Geologist	8(1), 8(2), 19(3), 35(3), 54(d), 59, 74
12	Assistant Controller of Mines	8(1), 8(2), 19(3), 35(3), 54(d), 59, 74
13	Junior Mining Geologist	8(1), 8(2), 19(3), 35(3), 54(d), 59, 74
14	Assistant Mining Engineer	8(1), 8(2), 19(3), 54(d), 59, 74
15	Assistant Mining Geologist	8(1), 8(2), 19(3), 54(d), 59, 74

This order shall come into force with immediate effect.

RANJAN SAHAI, Controller General, Indian Bureau of Mines

अधिसूचना

नागपुर, 11 मई, 2017

सं. टी-43010/सी.जी.बी.एम/2014.—खनिज संरक्षण एवं विकास नियमावली, 2017 के अंतर्गत कार्य-निष्पादन हेतु 'सक्षम प्राधिकारी' के रूप में भारतीय खान ब्यूरो के अधिकारियों को प्राधिकृत करने के लिए खनिज संरक्षण एवं विकास नियमावली, 2017 के नियम 10(1) के अंतर्गत मुझे प्रदत्त शक्तियों का उपयोग करते हुए मैं एतद-द्वारा खनिज संरक्षण एवं विकास नियमावली, 2017 एवं उस नियम/उन नियमों से संबंधित मामलों के संबंध में कार्रवाई करने के लिए 'सक्षम प्राधिकारी' के रूप में भारतीय खान ब्यूरो के अधिकारियों को निम्नानुसार प्राधिकृत करता हूँ।

क्रम सं.	सक्षम प्राधिकारी	एम.सी.डी.आर., 2017 के अंतर्गत नियम/नियमों
1.	मुख्य खान नियंत्रक	10(1), 10(2), 32(2), 32(6), 32(7)
2.	खान नियंत्रक	10(1), 10(2), 26(2), 30(1), 32(1)(ख), 32(7)
3.	मुख्य खनन भूविज्ञानी	10(1), 10(2), 32(7)
4.	क्षेत्रीय खान नियंत्रक	10(1), 10(2), 11(2), 11(4), 21(4), 23, 24(1), 24(2), 25(1), 25(2), 26(1), 26(2), 31, 32(7)
5.	उप-खान नियंत्रक (क्षेत्रीय कार्यालय के प्रभारी)	10(1), 10(2), 11(2), 11(4), 21(4), 23, 24(1), 24(2), 25(1), 25(2), 26(1), 26(2), 31, 32(7)

यह आदेश तत्काल प्रभाव से लागू होगा।

रंजन सहाय, महा-नियंत्रक, भारतीय खान ब्यूरो

NOTIFICATION

Nagpur, the 11th May, 2017

No. T-43010/CGBM/2014.—By virtue of powers vested in me under Rule 10(1) of Mineral Conservation and Development Rules, 2017 to authorize officers of Indian Bureau of Mines as "Competent Authority" to perform functions under Mineral Conservation and Development Rules, 2017, I hereby authorize the following officers of Indian Bureau of Mines as "Competent Authority" to take action in respect of Mineral Conservation and Development Rules, 2017 and the matters relating to rule/rules as mentioned below:—

Sl. No.	Competent Authority	Rule(s) under MCDR, 2017
1	Chief Controller of Mines	10(1), 10(2), 32(2), 32(6), 32(7)
2	Controller of Mines	10(1), 10(2), 26(2), 30(1), 32(1)(d), 32(7)
3	Chief Mining Geologist	10(1), 10(2), 32(7)
4	Regional Controller of Mines	10(1), 10(2), 11(2), 11(4), 21(4), 23, 24(1), 24(2), 25(1), 25(2), 26(1), 26(2), 31, 32(7)
5	Deputy controller of Mines (Incharge of Regional Office).	10(1), 10(2), 11(2), 11(4), 21(4), 23, 24(1), 24(2), 25(1), 25(2), 26(1), 26(2), 31, 32(7)

This order shall come into force with immediate effect.

RANJAN SAHAI, Controller General, Indian Bureau of Mines

Annexure-V

No. 16/106/2015-M.VI
Government of India
Ministry of Mines

Shastri Bhavan, New Delhi
Dated the, 12th July, 2017

To

1. The Secretary
In Charge of Mining and Geology
All State Governments
2. The Controller General
Indian Bureau of Mines
Indira Bhavan, Civil Lines
Nagpur (Maharashtra)

Subject: - Authorising IBM for according approval of mining plans for minor minerals
– issue of clarification regarding

Sir,

The Ministry of Mines has notified 31 minerals as “minor minerals”, which has been published in the official gazette vide notification No. GSR 423 (E) dated 10.02.2015. Some of the State Governments during the year 2015 had approached the Ministry regarding problem faced by them to approve the mining plans of newly notified 31 minor minerals.

2. To resolve the above said problem, as a transitory provision only for a period of two years (w.e.f. 27.07.2015 to 26.07.2017), the Ministry vide its letter dated 27.07.2015 had authorized Indian Bureau of Mines (**IBM**) to (i) approve the mining plans / scheme of mining; (ii) modify mining plan/scheme of mining, for minerals notified as “minor minerals” on or after 10th February, 2015. A copy of the said letter is enclosed herewith.

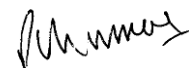
3. Government of Madhya Pradesh and other State Governments have sought the guidance of the Ministry of Mines on the process of approving the mining plan in cases where both the major and minor minerals co-exist in a lease hold area. The matter has been considered in the Ministry of Mines and it has been decided that IBM would approve the mining plans of leases wherein minor minerals co-exist with the major minerals.

4. In view of the above, IBM is hereby authorized to approve mining plans of mining leases wherein minor minerals co-exist with the major mineral until further orders.

5. IBM shall also continue to approve the mining plans of mining leases of newly notified 31 minor minerals for a further period two years up to 25.05.2019.

6. This issues with the approval of Hon'ble Minister of Mines.

Yours faithfully,



(P. Vinay Kumar)

Under Secretary to the Govt. of India
011-23384070
pv.kumar70@nic.in

Encl:- As above

Copy to:-

S. No. - 2 (U)

No. 16/106/2015-M.VI

Government of India

Ministry of Mines

New Delhi, Shastri Bhawan

Dated the 27th July, 2015

To
Principal Secretaries i/c of Mines Department
All State Governments/UTs

**Subject: Authorising IBM for according approval of mining plans for minor minerals -
issue of clarification regarding**

Sir,

The Ministry of Mines has notified 31 minerals as "minor minerals" vide notification no GSR 423 (E) dated 10.2.2015.

2) Some states have approached the Central Government stating that they do not have the man power with required knowledge for scrutinizing and approving the mining plans in respect of these minerals and have requested for issue of orders authorising the officials of IBM for approval of Mining Plans/Scheme of Mining in respect of these minor minerals.

3) There is no provision in the MMDR Act or the rules whereby the Central Govt (through the IBM) can accord approval for mining plans of minor minerals as the statutory provisions with regard to requiring an approved mining plan for mining operations are contained in the MCR, 1960 which has been framed under section 13 of MMDR Act; and provisions of sections 5-13 of the MMDR Act do not apply to minor minerals.

4) Powers of regulation of grant of concessions for minor minerals and for purposes connected therewith have been delegated to the State Governments as per section 15 of the MMDR Act, whereby State Governments have framed their own minor mineral concession rules.

5) State governments which are facing a problem in this regard may have their respective minor mineral concession rules, framed under section 15 of the MMDR Act, modified to the extent of including a provision authorising IBM to (i) approve mining plans / scheme of mining; (ii) modify mining plan / scheme of mining, for minerals notified as "minor minerals" on or after 10th February, 2015.

6) It may kindly be ensured that this would be a transitory provision only for a period of two years (i.e., till two years from the date of issue of this letter) in which time the state governments should build up the capacity of their respective DMGs for approving mining plans for all minerals notified as 'minor minerals'.

7) In this regard IBM has been authorised only to the extent of approving the mining plans / scheme of mining; (ii) modify mining plan / scheme of mining, for minerals notified as "minor minerals" on or after 10th February, 2015.

Yours faithfully,


(Prithul Kumar)
Director

Telefax No: 23070260

o/c

Copy to:

Controller General, IBM with reference to IBM's letter No.N-11013/3/MP/90-CCOM-Vol.-VII-PF dated 22.6.2015 issued by Shri Parag M Tadmbekar, Sr Mining Geologist, with the request to issue directions to all the concerned officers in IBM to: (i) approve the mining plans / scheme of mining; (ii) modify mining plan / scheme of mining, for minerals notified as "minor minerals" on or after 10th February, 2015 in respect of those states which have modified their minor mineral concession rules, framed under section 15 of the MMDR Act, 1957 subject to the conditions mentioned in para 5 and 6 above.


27.9.2015
(Prithu Kumar)
Director

Annexure VI

FORMAT FOR RECEIPT OF MINING PLAN/ REVIEW OF MINING
PLAN / MODIFIED MINING PLAN/ FINAL MINE CLOSURE PLAN

GOVERNMENT OF INDIA
MINISTRY OF MINES
INDIAN BUREAU OF MINES

NO.

R E C E I P T

(Contents not verified)

Received one copy of draft Mining Plan/Review of Mining Plan/Modification to the approved Mining Plan/ Final Mine Closure Plan containing ----- pages (text) ----- annexures and ----- plates and with the following particulars, for approval under Rule 16(1)/17(2)/17(3) of Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016/ under Rule 24(1) of MCDR'2017.

1. Name of the mine/ area with ML No./
TC No. /Lease Number
Village, District, State :
2. Name of Mineral :
3. Area in hectare :
4. Name of applicant :
5. Period of Proposals :
6. Name of Qualified Person :
7. Mode of receipt :
8. Fee received along with TR No. :
9. Date of receipt :
10. Remarks if any :

(Signature and designation of
Receiving officer), IBM

Annexure VII

Hkkjrljdkj/Government of India
[kkuea=ky;/Ministry of Mines
Hkkjrh; [kkuC;wjks/Indian Bureau of Mines
Ekq[; [kkufu;a=d dkdk;kZy;/Office of the Chief Controller of Mine

No.N-11013/1/MP/90-CCOM-Vol.-VIII(PF) Nagpur, dated 22-07-2016

To,
The Regional Controller of Mines,
Indian Bureau of Mines,
Ajmer/Bangalore/Bhubaneshwar/Chennai/Dehradun/Goa/Hyderabad/
Jabalpur/ Kolkata / Nagpur / Raipur/Ranchi / Udaipur.

Sub.- Instructions for transparent and expeditious disposal of mining plan / modified mining plan/ review of mining plan or scheme of mining within 45 days-regarding.

Sir,
On the subject matter kindly find enclosed herewith the "Instructions for transparent and expeditious disposal of mining plan / modified mining plan / review of mining plan or scheme of mining within 45 days"(Annexure-1).

I am directed to request you to strictly adhere to the instructions enclosed with this letter and maintain the time schedule as given in the bar chart(Annexure-2).

Yours faithfully,

Encl. : as stated.

(Dr. P. K. Jain)
Suptdg. Mining Geologist

1. The Controller of Mines (NZ/CZ SZ), Indian Bureau of Mines, Ajmer/ Nagpur/Bangalore for necessary action and strict follow up in the matter. A list of cases exceeding 45 days shall be sent to CCOM Office fortnightly.

2. The Technical Secretary, IBM, Nagpur for information.

(Dr. P. K. Jain)
Suptdg. Mining Geologist

Annexure-1

IMPORTANT INSTRUCTIONS FOR TRANSPARENT AND EXPEDITIOUS DISPOSAL OF MINING PLAN / MODIFIED MINING PLAN/ REVIEW OF MINING PLAN OR SCHEME OF MINING WITHIN 45 DAYS

1. There should be minimum interface between the lessee / lease holder / person qualified to prepare a mining plan and the Regional / Sub Regional office.
2. The processing fee for the mining plan is to be accepted only through the Demand Draft till the electronic payment gateway is established.
3. The soft copy of the mining plan in pdf format (both text and plates) is to be sent by e-mail in the official mail id of concerned Regional / Sub Regional office, followed by its hardcopies.
4. The hard copy (two numbers) of the Mining Plan along with the processing fee by Demand Draft, is to be sent to the concerned office through assured post, without any human intervention.
5. The soft copy of the mining plan is to be forwarded to the concerned State Governments for their comments giving them fifteen (15) days time period.
6. If RCOM or DCOM (I/C) of the concerned region is on leave / tour then the next higher officer will mark the mining plan for its processing in consultation with RCOM or DCOM (I/c). Document is not to be kept in pending state awaiting the joining of RCOM or DCOM(I/c).
7. Concerned inspecting officer will carry out the site inspection and will submit its scrutiny comments, within a period of 15 days from the date of marking.
8. Lessee / Lease holder is to attend the scrutiny comments and the final copies of the mining plan after attending the scrutiny comments are to be submitted to the concerned regional office by post (hard copy) as well as by e-mail (soft copy) within a period of fifteen (15) days from the date of issue of scrutiny comments by e-mail.

...2

9. If the modified copies of the mining plan is not received after issue of scrutiny within the stipulated time frame, as given in the enclosed bar chart then it will be liable for rejection and in any case no time extension will be given.

10. Issue of scrutiny letter will be through e-mail only.

11. Approval / disapproval letter is to be sent by e-mail followed by dispatch of hard approved / disapproved copies by post.

12. Entire activity of processing of mining plans is to be completed within a period of 45 days without any fail, as shown in the enclosed bar chart.

**GOVERNMENT OF INDIA
MINISTRY OF MINES
INDIAN BUREAU OF MINES
OFFICE OF THE CHIEF CONTROLLER OF MINES**

No. N-11013/3/MP/90-CCOM Vol-VII

Nagpur, dated 06/04/2010

C I R C U L A R N O. 2/2010

Sub: Submission of Geo-referenced Cadastral Map.

As per the procedure in vogue, a Mining Lease map / Prospecting License map showing the area/areas with details on a cadastral map with the Khasra numbers / Survey Nos. for mining lease / prospecting license, granted by the state governments under Act and Rules made there-under, is a basic requirement which is enclosed alongwith the Mining Plan / Scheme of Mining / Progressive Mine Closure Plan and Scheme of Prospecting. The Mining Lease map/ Prospecting License map is a certified copy obtained from the state / district authorities which is essential for planning purpose in mining plan / Scheme of Mining etc.

In supersession to all the instructions issued on the subject, it is decided that:

1. The Mining Lease / Prospecting License boundary showing all Khasra numbers / Survey Nos. on a Cadastral Map (Khasra Plan) on original plan (not the photo copy) and duly certified by State Government on a scale of 1:3960 shall be submitted with Mining Plan / Scheme of Mining / Progressive Mine Closure Plan and Scheme of Prospecting by the Lessee / Applicant / Licensee.
2. The boundary pillars of each mine lease / prospecting license are to be fixed precisely. Each boundary pillars shall be surveyed using DGPS (at least 2 Hours observation) for its ground position by an agency recognized by the State Government).
3. The Geo-referenced mining lease / prospecting licenses map prepared using DGPS shall be superimposed on Geo-referenced vectorised cadastral map.
4. On integration, the Geo-referenced mining lease / prospecting licenses map shall duly matched with geo-referenced vectorised cadastral maps.
5. In case of forest areas, the boundary pillars shall be fixed on ground with reference to at least three permanent ground features in and around mining leases / prospecting licenses.
6. The geo-referenced mining leases / prospecting licenses map shall be superimposed on latest high-resolution satellite data (cloud-free) derived from merging of Cartosat-2 and LISS-IV (Scale 1:5,000) covering an area of 500 meters from the mining lease / applied area boundary.
7. The satellite data products are available from NRSC, Hyderabad. The superimposed output in the form of soft copy and hard copy should be submitted along with the Mining plan / Scheme of Mining / Progressive Mine Closure Plan and Scheme of Prospecting. The soft copy submission should be in the standard format and digitized maps should be in shape file, which can be imported in any GIS database.
8. The above maps will be base for preparation of all statutory as well as working plans of the mines.

This circular may be given wide publicity amongst RQPs / Mine Owners / Lessee's / Licensee's / Applicants for implementation. Further, this may be intimated to all the states.

(Ranjan Sahai)
Chief Controller of Mines In Charge

GOVERNMENT OF INDIA
MINISTRY OF MINES
INDIAN BUREAU OF MINES
OFFICE OF THE CHIEF CONTROLLER OF MINES

No. N-11013/3/MP/90-CCOM Vol.-VII Nagpur, dated ²³09/2011

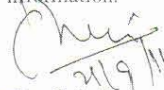
C I R C U L A R N O. 2/10 (ADDENDUM)

Sub. : Submission of Geo-referenced Cadastral Map

In continuation to the Circular No. 2/10 on the above subject, the following item has been included as part and parcel of the circular after serial no.8.

9. Following system of construction and maintenance of boundary pillar shall be adhered :
- (a) The maximum distance between any two successive pillars should not be more than 100 meter.
 - (b) All corner pillars should be of pyramid shaped with base of 1 meter and height of 2 meter, and should be placed 1 meter above the ground and 1 meter below the ground.
 - (c) Distance and bearing to the forward and backward pillars and latitudes and longitudes should be marked on all the corner pillars.

The Above modifications may be brought to the notice of all concerned Licensees/Lessees for implementation and State Government for information.

etc

(Ranjan Sahai)
Controller of Mines

The Controller of Mines (NZ / SZ / CZ),
Indian Bureau of Mines,
Ajmer / Bangalore / Nagpur

✓ The Regional Controller of Mines / DCOM & OIC,
Indian Bureau of Mines,
Ajmer / Bangalore / Bhubaneswar / Chennai / Dehradun / Goa / Hyderabad / Jabalpur /
Kolkata / Nagpur / Ranchi / Udaipur.

The Technical Secretary,
Indian Bureau of Mines,
Nagpur

Annexure-IX

Model Approval Letter for Fresh grant of Mining Lease

BY REGD. PARCEL

**GOVERNMENT OF INDIA
MINISTRY OF MINES
INDIAN BUREAU OF MINES
OFFICE OF THE REGIONAL CONTROLLER OF MINES, -----**

No.-----Dt : -----

Shri/M/s. -----

Sub:Approval of Mining Plan including Progressive Mine Closure Plan in respect of your Applied Mining Lease Area for----- (Name of the mineral) over an area of ----- Ha. situated in ----- Village, ----- Taluka, ----- District of ----- State.

Ref :(i) Your Letter No. ----- dated ----- submitting ----- copy of Mining Plan in respect of aforesaid applied M.L.Area.
(ii) This office letter of even no. dated -----.
(iii) Your Letter No. ----- dated ----- submitting final bound copies of Mining Plan in respect of aforesaid applied ML area.

Sirs,

In exercise of the powers conferred by clause (b) of sub-section (2) of section 5 of the Mines & Minerals (Development & Regulation) Act, 1957 read with Government of India Order No.S.O.445(E) dated 28.04.1987 and S.O. 1857(E) dated 18th May, 2016; I hereby **approve** the above said Mining Plan alongwith Progressive Mine Closure Plan (PMCP). This approval is subject to the following conditions:

1. That the Mining Plan is approved without prejudice to any other laws applicable to the mine / area from time to time whether made by the Central Government, State Government or any other authority.
2. That this approval of the Mining Plan does not in any way imply the approval of the Government in terms of any other provisions of the Mines & Minerals (Development & Regulation) Act, 1957 or the Mineral Concession Rules, 1960 or any other laws including Forest (Conservation) Act, 1980, Environment (Protection) Act, 1986 and the rules made there under.
3. That the Mining Plan is approved without prejudice to any other order or direction from any court of competent jurisdiction.

4. The provisions of the Mines Act, 1952 and Rules and Regulations made thereunder including submission of notices of opening, appointment of manager and other statutory officials as required by the Mines Act, 1952 shall be complied with.
5. If anything is found to be concealed as required by the Mines Act in the contents of the mining plan and the proposal for rectification has not been made, the approval shall be deemed to have been withdrawn with immediate effect.
6. The execution of mining plan shall be subjected to vacations of prohibitory orders / notices, if any.
7. A copy of EIA/EMP Report approved by MOEF, New Delhi should be submitted to this office within one month of its approval alongwith a copy of their approval letter.
8. This approval for proposed mining operation and associated activities is restricted to the mining lease area only from this date. The mining lease area is as shown on the statutory plans by the Lessee/QP/Applicant and Indian Bureau of Mines has not undertaken any survey verification of mining lease boundary on the ground.
9. Your attention is invited to the Supreme Court interim order in W.P. (C) No. 202 dated 12.12.1996 for compliance. The approval of above said Mining Plan is therefore, issued without prejudice to and is subject to the said directions of the Supreme Court as applicable.
10. The details of grant / execution of the lease by State Government, whenever such an order is passed may be intimated to this office.
11. This department does not undertake any responsibility regarding correctness of the boundaries of the lease area shown on the ground.
12. At any stage, if it is observed that the information furnished in the document are incorrect or misrepresent facts, the approval of the document shall be revoked with immediate effect.
13. ^^The approval of Mining Plan is subject to the compliance of CCOM's Circular No. 2/2010 regarding submission of Geo-referenced Cadastral Map showing disposition of the lease area certified by competent authority of State Government within 6 months from the date of recognition of the agency by the State Government to undertake such survey or from the date of lease execution whichever is earlier. (^^ If applicable)
14. Next Review of Mining Plan shall become due before the expiry of 180 from the date of execution of Mining Lease.

Yours faithfully,

Encl: 02 copies of Approved Mining Plan

(-----)
Regional Controller of Mines

Copy forwarded for information to Shri----- Qualified Person

(-----)
Regional Controller of Mines

Not on first two copies:

Copy forwarded for kind information to:

- 1) The Director, Department of Mines & Geology, Government of -----
-----.
- 2) The Controller of Mines (---), Indian Bureau of Mines, -----.
- 3) The Director of Mines Safety, -----.

(-----)
Regional Controller of Mines

Annexure X

Model Approval Letter for Review of Mining Plan

BY REGD. PARCEL

**GOVERNMENT OF INDIA
MINISTRY OF MINES
INDIAN BUREAU OF MINES
OFFICE OF THE REGIONAL CONTROLLER OF MINES,-----**

No.-----Dt : -----

Shri/M/s. -----

Sub:Approval of Review and Mining Plan including Progressive Mine Closure Plan in respect of your Mining Lease Area for------(Name of the mineral) over an area of ----- Ha. situated in ----- Village, ----- Taluka, ----- District of ----- State.

Ref :(i) Your Letter No. ----- dated ----- submitting ----- copy of Mining Plan in respect of aforesaid M.L.Area.
(ii) This office letter of even no. dated -----.
(iii) Your Letter No. ----- dated ----- submitting final copies of Mining Plan in respect of aforesaid M.L.Area.

Sirs,

In exercise of the powers conferred by clause (2) of Rule 17 of the Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016 readwith S.O. 1857(E) dated 18th May, 2016; I hereby **approve** the above said Review and Mining Plan alongwith Progressive Mine Closure Plan (PMCP) for the period of ----- to ----- (five years proposal period may be indicated). This approval is subject to the following conditions:

1. This Mining Plan (including Progressive Mine Closure Plan) is approved without prejudice to any other laws applicable to the mine / area from time to time whether made by the Central Government, State Government or any other Authority.
2. The Mining Plan (including Progressive Mine Closure Plan) is approved without prejudice to any order or direction from any court of competent jurisdiction.
3. It is also clarified that the approval of your aforesaid Mining Plan (including Progressive Mine Closure Plan) does not in any way imply the approval of the Government in terms of any other provisions of the Mines and Minerals (Development & Regulation) Act, 1957 as amended or the

- rules framed there under and any other laws including Environment (Protection) Act, 1986, and the rules framed there under.
4. It is further clarified that the approval of the Mining Plan (including Progressive Mine Closure Plan) is subject to the provision of Forest (Conservation) Act, 1980, Forest Conservation Rules, 2003 and other relevant statutes, order and guidelines as may be applicable to the lease area from time to time.
 5. The provisions of the Mines Act, 1952 and Rules & Regulations made there under shall be complied with.
 6. The execution of Mining Plan shall be subjected to vacations of prohibitory orders /notices, if any.
 7. Your attention is invited to the Supreme Court interim order in W.P. (C) No. 202 dated 12.12.1996 for compliance. The approval of above said Scheme of Mining (including Progressive Mine Closure Plan) is therefore, issued without prejudice to and is subject to the said directions of the Supreme Court as applicable.
 8. If anything is found to be concealed as required by the Mines Act in the contents of the Mining Plan and the proposal for rectification has not been made, the approval shall be deemed to have been withdrawn with immediate effect.
 - 9.^^The validity period of the financial assurance shall be renewed before the expiry of the same and should be submitted to this office. (^^wherever applicable)
 - 10.This department does not undertake any responsibility regarding correctness of the boundaries of the lease area shown on the ground
 11. This approval for mining operation and mining related activities is restricted to the mining lease area only from this date. The mining lease area is as shown on the statutory plans by the Lessee/QP/Applicant and Indian Bureau of Mines has not undertaken verification of mining lease boundary on the ground.
 12. This approval is given for received proposals as applicable from this date for the mining activities to be carried out within the mining lease area.
 13. At any stage, if it is observed that the information furnished in the document are incorrect or misrepresent facts, the approval of the document shall be revoked with immediate effect.
 - 14.^^This approval is subject to submission of DGPS Plan duly authenticated by the State Government and submission of modifications in the approved Mining Plan if, consequent to the authentication of DGPS Survey Plan, any change in mining lease area is accepted by the State Government. (^^ If applicable)
 15. The approval of the above said Mining Plan with PMCP is subject to condition that you shall maintain boundary pillars as indicated in Rule 12 (v) of Minerals(Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016.
 16. The next Review and Mining Plan for the subsequent period of five years shall become due on -----.

Encl: Approved Mining Plan (01 copy)

Yours faithfully,

(-----)
Regional Controller of Mines

Copy forwarded for information to Shri----- Qualified Person

(-----)
Regional Controller of Mines

Not on first Two copies:

Copy forwarded for kind information to:

- (i) The Controller of Mines (---), Indian Bureau of Mines, -----.
- (ii) The Director of Mines Safety, -----
- (iii) The Director, ----- alongwith copy of approved MiningPlan& progressive mine closure plan.
- (iv) QP file/Mine file/Guard file.

(-----)
Regional Controller of Mines

Annexure XI

Model Approval Letter for Modifications in the Mining Plan

BY REGD. PARCEL

**GOVERNMENT OF INDIA
MINISTRY OF MINES
INDIAN BUREAU OF MINES
OFFICE OF THE REGIONAL CONTROLLER OF MINES,-----**

No.-----Dt : -----

Shri/M/s. -----

Sub:Approval of modifications in the Mining Plan in respect of your Mining Lease Area for----- (Name of the mineral) over an area of ----- Ha. situated in ----- Village, ----- Taluka, ----- District of -- ----- State.

Ref :(i) Your Letter No. ----- dated ----- submitting ----- copy of modified Mining Plan in respect of aforesaid M.L. Area.
(ii) This office letter of even no. dated -----.
(iii) Your Letter No. ----- dated ----- submitting final copies of Mining Plan in respect of aforesaid M.L. Area.

Sirs,

In exercise of the powers conferred by clause (b) of sub-section (2) of section 5 of the Mines & Minerals (Development & Regulation) Act, 1957 and clause (3) of Rule 17 of the Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016 read with Government of India Order No.S.O.445(E) dated 28.04.1987 and S.O. 1857(E) dated 18th May, 2016; I hereby **approve** the modifications in Mining Plan alongwith Progressive Mine Closure Plan (PMCP) for the period of ----- to ----- (proposal period may be indicated). This approval is subject to the following conditions:

1. That the Modified Mining Plan is approved without prejudice to any other laws applicable to the mine / area from time to time whether made by the Central Government, State Government or any other authority.
2. That this approval of the Modified Mining Plan does not in any way imply the approval of the Government in terms of any other provisions of the Mines & Minerals (Development & Regulation) Act, 1957 or the Mineral Concession Rules, 1960 or any other laws including Forest (Conservation) Act, 1980, Environment (Protection) Act, 1986 and the rules made there under.

3. That the Modified Mining Plan is approved without prejudice to any other order or direction from any court of competent jurisdiction.
4. The provisions of the Mines Act, 1952 and Rules and Regulations made thereunder including submission of notices of opening, appointment of manager and other statutory officials as required by the Mines Act, 1952 shall be complied with.
5. If anything is found to be concealed as required by the Mines Act in the contents of the modified mining plan and the proposal for rectification has not been made, the approval shall be deemed to have been withdrawn with immediate effect.
6. The execution of modified mining plan shall be subjected to vacations of prohibitory orders / notices, if any.
7. ^^A copy of EIA/EMP Report approved by MOEF, New Delhi should be submitted to this office within one month of its approval along with a copy of their approval letter. (^^ if applicable)
8. The Environmental Monitoring Cell of the company shall continue monitoring ambient Air quality, dust fall rate, water quality, soil sample analysis and noise level measurements on various stations established for the purpose both in the core zone and buffer zone, as per Department of Environment guidelines and keeping in view IBM's Circular No. 3/92, season- wise every year or by engaging preferably the services of and Environmental Laboratory approved by MOEF / CPCB. The data so generated shall be maintained in a bound paged register kept for the purpose and the same shall be made available to the inspecting officer on demand.
9. This approval for proposed mining operation and associated activities is restricted to the mining lease area only. The mining lease area is as shown on the statutory plans by the Lessee/QP/Applicant and Indian Bureau of Mines has not undertaken verification of mining lease boundary on the ground.
10. Your attention is invited to the Supreme Court interim order in W.P. (C) No. 202 dated 12.12.1996 for compliance. The approval of above said Modified Mining Plan is therefore, issued without prejudice to and is subject to the said directions of the Supreme Court as applicable.
11. This department does not undertake any responsibility regarding correctness of the boundaries of the lease area shown on the ground with reference to lease map & other plans furnished by the lessee.
12. Yearly report as required under Rule 26(2) of Mineral Conservation and Development Rules 1988, setting forth the extent of protective and rehabilitative works carried out as envisaged in the approved progressive mine closure plan and if there is any deviations, reasons thereof shall be submitted before 1st July of every year.
13. ^^The validity period of the financial assurance shall be renewed before the expiry of the same and should be submitted to this office. (^^ wherever applicable)
14. At any stage, if it is observed that the information furnished in the document are incorrect or misrepresent facts, the approval of the document shall be revoked with immediate effect.

15. This approval is given for received proposals as applicable from this date for the Mining activities to be carried out within the mining lease area. The earlier instances of irregular mining / illegal mining, if any shall not be regularized through the approval of this document.

16. The approval of the above said Modified Mining Plan with PMCP is subject to condition that you shall maintain boundary pillars as indicated in Rule 12 of Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016.

Encl: 01 Copy of Approved
Modified Mining Plan.

Yours faithfully,

(-----)
Regional Controller of Mines

Copy without enclosure forwarded for information to Shri. -----,
Qualified Person

(-----)
Regional Controller of Mines

Not on first Two copies:

Copy forwarded for kind information to:

- (i) The Controller of Mines (---), Indian Bureau of Mines, -----.
- (ii) The Director of Mines Safety, -----
- (iii) The Director, ----- alongwith copy of approved
Modified Mining Plan & progressive mine closure plan.
- (iv) QP file/Mine file/Guard file.

(-----)
Regional Controller of Mines

Annexure XII

Model Rejection Letter for Mining Plan

BY REGD. PARCEL

**GOVERNMENT OF INDIA
MINISTRY OF MINES
INDIAN BUREAU OF MINES
OFFICE OF THE REGIONAL CONTROLLER OF MINES, -----**

No.-----**Dt :** -----

Shri/M/s. -----

Sub:Approval of Mining Plan[^]/Review of Mining Plan[^]/Modifications in Mining Plan[^] including Progressive Mine Closure Plan in respect of your Mining Lease Area for------(Name of the mineral) over an area of ----- Ha. situated in ----- Village, -----Taluka, ----- District of ----- State.

Ref : 1) Your reference No._____ dated _____
2) Our reference No._____ dated _____

Sir,

In exercise of the powers conferred by clause (b) of sub-section (2) of section 5 of the Mines & Minerals (Development & Regulation) Act, 1957 and clause (1) of Rule 16/[^] clause (2) of Rule 17/[^]clause (3) of Rule 17[^] of the Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016 read with Government of India Order No.S.O.445(E) dated 28.04.1987and S.O. 1857(E) dated 18th May, 2016;, you are hereby informed that the Mining Plan/Review of Mining Plan/Modifications in the Mining Plan submitted by you is not approved for the following reasons:

- i) _____
- ii) _____
- iii) _____

Yours faithfully,

(-----)
Regional Controller of Mines

Copy without enclosure forwarded for information to Shri. -----,
Qualified Person

(-----)
Regional Controller of Mines

Not on first Two copies:

Copy forwarded for kind information to:

- (i) The Controller of Mines (---), Indian Bureau of Mines, -----.
- (ii) The Director of Mines Safety, -----
- (iii) The Director, -----.
- (iv) QP file/Mine file/Guard file.

(-----)
Regional Controller of Mines

Annexure XIII**Model Bank Guarantee Form**

Form No. _____

The Regional Controller of Mines/Deputy Controller of Mines (Office In-charge),
Indian Bureau of Mines,

Dear Sirs,

Guarantee No. _____

Amount of Guarantee Rs. _____

Guarantee Period from _____ to _____

Last date for lodgement of claim _____

This Deed of guarantee executed on ____ Day of _____, 20__ by
_____ (bank name) constituted under the
_____ Act having its central office at
_____ and amongst other places, a
branch at _____ (hereinafter referred to as the bank) in favour of the
Regional Controller of Mines/ Deputy Controller of Mines (Office In-charge),
Indian Bureau of Mines, _____ (hereinafter referred to as
the Beneficiary) for an amount not exceeding Rs. _____

(Rs. _____
_____) at the request of _____ (hereinafter referred to as the
contractor/s). This guarantee is issued subject to the condition that the liability
of the bank under this guarantee is limited to maximum of
Rs. _____ (Rs _____ only)
and the guarantee shall remain in full force up to _____ (date of
expiry) and cannot be revoked on or before _____ (last date of
claim) by the Bank or applicant.

SUBJECT TO AS AFORESAID

(Main guarantee matter may be typed hereafter)

For (Bank)
Seal
Branch Manager
(_____ Branch)

BANK GUARANTEE AND CO-ACCEPTANCE BOND

1. Agreement on production of a Bank guarantee for Rs. _____ (Rs. _____ only) under rule 27 of MCDR, 2017.

2. We _____ (bank name), at the request of Shri _____ S/o Shri _____ (lessee) do hereby undertake to pay to the Regional Controller of Mines/ Deputy Controller of Mines (Office In-charge), Indian Bureau of Mines _____ or any other officer authority nominated by the Controller General, Indian Bureau of Mines an amount not exceeding Rs. _____ (Rs. _____ only) against any loss or damage caused to or suffered or would be caused to or suffered by the Government or towards non compliance of provisions of Rule 22, 23, 24 & 26 of MCDR, 2017 i.e. Mine closure plan/progressive or final mine closure plan approved in respect of the mining lease (name of mine) _____ for _____ (ore/ores) over an area of _____ Hects. granted by State Government to Shri/Ms _____ S/o _____ (lessee) situated in _____ Village _____ Taluka _____ District _____ State by reason of any breach of the said lessee of any of the terms or conditions contained in the Mine closure plan/Progressive Mine Closure Plan/Final Mine Closure Plan.

3. We, _____ (bank) do hereby undertake to pay the amount due and payable under this guarantee without any demur, to the authority merely on a demand from the Regional Controller of Mines/ Deputy Controller of Mines (Office In-charge), Indian Bureau of Mines _____ or any other officer authorized by the Controller General, Indian Bureau of Mines stating that the amount claimed is due by way of loss or loss of damage caused to or would be caused to or suffered by the government by reason of breach by the said lessee or any of the terms or conditions contained in the mining plan/mining scheme or by reason of lessee's failure to perform the said mine closure plan/progressive mine closure plan/ Final Mine Closure Plan. However our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____ (Rs. _____ only).

4. We undertake to pay to the authority on a demand from the Regional Controller of Mines / Deputy Controller of Mines (Office In-charge), Indian Bureau of Mines, _____ or any other officer authorized by the Controller General, Indian Bureau of Mines or Govt. of India any money so demanded notwithstanding any dispute or disputes raised by the lessee in any suit or proceedings pending before any court or tribunal relating thereto our

liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be valid discharge of our liability for payment there under and lessee shall have no claim against us for making such payment.

5. We, _____ (bank name), further agree that the guarantee herein contained shall remain in full force and effect during the period up to the end of the Mining Plan/ Review of Mining Plan/ Modification in the Mining Plan period of five years/Final Mine Closure Plan period of two years that would be taken for performance of the said Agreement and that shall continue to be enforceable till all the dues of the Govt. under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged till Regional Controller of Mines / Deputy Controller of Mines (Office In-charge), Indian Bureau of Mines, _____ or any other officer authorized by the Controller General, Indian Bureau of Mines certifies that the terms and conditions of the said progressive mine closure plan/final mine closure plan have been fully and properly carried out by the said lessee and accordingly discharge this guarantee.

Unless a demand or claim under this guarantee is made on us in writing on or before _____, we shall be discharged from all liability under this guarantee thereafter.

6. We further agree that Regional Controller of Mines / Deputy Controller of Mines (Office In-charge), Indian Bureau of Mines, _____ or any other officer authorized by the Controller General, Indian Bureau of Mines shall have fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said lessee from time to time or to postpone for any time or from time to time any powers exercisable by Regional Controller of Mines / Deputy Controller of Mines (Office In-charge), _____ against the said lessee and to forbear or enforce any of the terms and conditions relating to the said agreement, we (bank) shall not be relieved from our liability by reason of any such variation or extension being granted to the said lessee or for any forbearance, act or omission on the part of Regional Controller of Mines / Deputy Controller of Mines (Office In-charge), Indian Bureau of Mines, _____ or any indulgence by Regional Controller of Mines / Deputy Controller of Mines (Office In-charge), Indian Bureau of Mines, _____ to the said lessee or any manner or thing whatsoever which under the law relating to sureties, would but this provision have effect of so relieving us.

7. This guarantee will not be discharged due to change in constitution of the bank or lessee.

8. We, _____ (bank name), lastly undertake not to revoke this guarantee during its currency except with the previous consent of the

Regional Controller of Mines / Deputy Controller of Mines (Office In-charge),
Indian Bureau of Mines, _____ in writing.

9. Notwithstanding anything contained herein:

a) Our liability under this Bank guarantee shall not exceed Rs.

(Rs. _____ only)

b) The bank guarantee shall be valid up to _____

c) The period of bank guarantee submitted is valid for the period of the proposals given in the Mining Plan/PMCP/FMCP etc. We are liable to pay the guarantee amount or any part thereof under this Bank guarantee and only if served upon us a written claim or demand on or before _____

10. If the bank guarantee is to be en-cashed through the court, in that case the (city where Regional office, IBM is located) court will have jurisdiction.

11. In witness whereof, the bank through its authorized officer has set its hand and stamp on this ___ Day of _____ 20___ at

_____.

(Bank) Seal
Branch Manager,
_____ Branch

FOLLOWING POINTS NEED TO BE CONSIDERED WHILE SUBMITTING THE BANK GUARANTEE

- a) The bank guarantee should be made on stamp paper of appropriate value as per respective states Stamp Act.
- b) Each page of bank guarantee should be signed by two bank officers indicating clearly their name, designation and code number.
- c) Item No.2 of the bank guarantee should clearly indicate the name of the Mine, ML No., Survey.No./Khasra No., Village, Taluka, Dist. and State etc.
- d) **The period of bank guarantee should be co-terminus with the plan period**
- e) Original bank guarantee should be submitted separately with a forwarding letter while submitting final bound copies of MP/ Review of MP/ Modification in the Mining Plan/FMCP and a photocopy should be kept in each bound copy of MP/ Review of MP/ Modification in the Mining Plan/FMCP.
- f) Every page of the bank guarantee should be signed by the Bank Manager under his seal.

Annexure XIV
By Registered Post/e-mail



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GOVERNMENT OF INDIA
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MINISTRY OF MINES
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INDIAN BUREAU OF MINES
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..... REGIONAL OFFICE

No. -----

Dated ----

To

Subject: Approval of Final Mine Closure Plan in respect of -----
----- Mine of M/s -----,
over an area of ----- ha. in ----- district of -----
State submitted under Rule 24(1) of Mineral Conservation and
Development Rules, 2017.

Reference:

Sir,

In exercise of the powers conferred by the sub-Rule (2) of Rule 24 of Mineral Conservation and Development Rules, 2017, I hereby **APPROVE** the above said Final Mine Closure Plan in respect of your --
----- mine over an area of ----- hectares in District -----
-----, ----- State. This approval is subject to the following conditions:-

- 1) that the Final Mine Closure Plan is approved without prejudice to any other laws applicable to the mine /area from time to time whether made by the Central Government, State Government or any other authority.
- 2) that this approval of the Final Mine Closure Plan does not in any way imply the approval of the Government in terms of any other provisions of the Mines & Minerals (Development & Regulation) Amendment Act, 2015 or the Minerals (Other than Atomic and Hydro-Carbon Energy Minerals) Concession Rule 2016 or any other laws

including Forest (Conservation) Act, 1980, Environment (Protection) Act, 1986 and the rules made there under.

3) that the Final Mine Closure Plan is approved without prejudice to any other order or direction from any court of competent jurisdiction.

4) that the yearly report in the prescribed format indicating the extent of protective and rehabilitative works carried out as envisaged in the approved Final Mine Closure plans as required under Rule 26(2) of Mineral Conservation and Development Rules, 2017 shall be submitted before 1st July of every year upto the final closure.

Encl.: One copy of approved Final Mine Closure Plan

Yours faithfully,

(-----)
Regional Controller of Mines/DCOM (I/C)

Copy for information to:-

1) The Director, Directorate of Geology & Mining, -----, along with a copy of approved Final Mine Closure Plan. It is requested to ensure that the surrender of aforesaid lease is not accepted unless and until a certificate issued by the Indian Bureau of Mines under Rule 21(4) of Mineral Conservation and Development Rules, 2017 to the effect that protective, reclamation and rehabilitative works as envisaged in the approved Final Mine Closure Plan are carried out.

2) The Director, Directorate of Mines Safety, -----

3) Shri/Dr.-----, QP

(-----)
Regional Controller of Mines/DCOM (I/C)
Indian Bureau of Mines

N.O.O.

Copy for information to:-

1) The Chief Controller of Mines, IBM, Nagpur

2) The Controller of Mines (CZ/EZ/NZ/SZ), MDR Division, IBM

3) MCDR File / Approved Final Mine Closure Plan document/ Guard File

(-----)
Regional Controller of Mines/DCOM (I/C)
Indian Bureau of Mines

Annexure XV
By Registered Post/e-mail



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GOVERNMENT OF INDIA
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MINISTRY OF MINES
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INDIAN BUREAU OF MINES
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..... REGIONAL OFFICE

No. -----

Dated -----

To

Subject: Disapproval of Final Mine Closure Plan in respect of -----
----- Mine of M/s -----,
over an area of -----ha. in ----- district of ----- State
submitted under Rule 24(1) of Mineral Conservation and
Development Rules, 2017.

Reference:

Sir,

In exercise of the powers conferred by the sub-Rule (2) of Rule 24
of Mineral Conservation and Development Rules, 2017; I hereby
DISAPPROVE the above said Final Mine Closure Plan in respect of
your ----- mine covering an area of ----- hectares in District
-----, ----- State for following reason(s):

1. -----
2. -----
3. -----

(Or enclose Annexure of discrepancies)

Yours faithfully,
(-----)
Regional Controller of Mines/DCOM (I/C)
Indian Bureau of Mines

Copy for information to:-

- 1) The Director, Directorate of Geology & Mining, ----- . It is requested to ensure that the surrender of aforesaid lease is not accepted unless and until a Final Mine Closure Plan is approved and implemented and certificate is issued by IBM to this effect.
- 2) The Director, Directorate of Mines Safety, -----.
- 3) Shri/Dr.-----, QP

(-----)
Regional Controller of Mines/DCOM (I/C)
Indian Bureau of Mines

N.O.O.

Copy for information to:-

- 1) The Chief Controller of Mines, IBM, Nagpur
- 2) The Controller of Mines (CZ/EZ/NZ/SZ), MDR Division, IBM
- 3) MCDR File/Guard File

(-----)
Regional Controller of Mines/DCOM (I/C)
Indian Bureau of Mines

Annexure XVI
MODEL CERTIFICATE TO BE
ISSUED UNDER RULE 21(4) OF MCDR 2017



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GOVERNMENT OF INDIA
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INDIAN BUREAU OF MINES
..... {ks=h; dk;kZy;
..... REGIONAL OFFICE

No.-----

Dated -----

CERTIFICATE

In exercise of the powers conferred on me under Sub-Rule (4) of Rule 21 of Mineral Conservation and Development Rules, 2017 delegated vide Notification No. T-43010/CGBM/2014 dated 11th May 2017 and published in the Gazette of India dated 31st May 2017; I, hereby, certify that the protective, reclamation and rehabilitation work in accordance with the Final Mine Closure Plan approved vide letter No.----- dated-----
- have been carried out in the mining lease / part of mining lease over an area of -----Ha in respect of ----- (name of the mine and mineral) mine held by Messer's /Shri/Smt. -----in -----
----- district in the State of -----.

This Certificate is issued without prejudice to any other laws applicable to the mine/lease area from time to time and also without any prejudice to any other order or direction from any court of competent jurisdiction.

(-----)
Regional Controller of Mines/DCOM (I/C),
Indian Bureau of Mines

To,
Messer's /Shri/Smt. -----,
-----,
-----,
-----.

Not On Original:

Copy for kind information to the:

1. The Chief Controller of Mines, Indian Bureau of Mines, Nagpur

2. The Controller of Mines (CZ/EZ/NZ/SZ), MDR Division, Indian Bureau of Mines.
3. Director, Directorate of Mines & Geology, (whatever name) Govt. of -----
-----.

(-----)
Regional Controller of Mines/DCOM (I/C),
Indian Bureau of Mines