

**OUTLINE OF SCHEME OF MINING
TO BE SUBMITTED UNDER RULE 12 OF MCDR,1988
(FOR A & B CATEGORY MINES)**

The scheme shall be depicted as far as possible on mine plans and sections duly supplemented by tabular statements / charts / diagrams or sketches in support, keeping the descriptive matter to the minimum essential. The plans and sections prescribed under Mineral Conservation and Development Rules, 1988 and the relevant ones under Metalliferrous Mines Regulation, 1961 shall be made full use of . In respect of any item(s) where there is no change, reference to the approved mining plan will be adequate.

PART-I

1.0 REVIEW OF MINING PLAN

1.1 Name of Mine

1.2 Particulars of approval of mining plan (under MCR or MCDR, indicate approval letter no. and date)

1.3 Date of commencement of mining operations.

1.4 (a) Deficiencies , if any, that existed in the approved mining plan to be taken note of and rectified by incorporating suitable proposals for implementation in the scheme of mining.

(b) Review of compliance position of salient features of the mining plan on chapterwise basis bringing out marked deviations, if any, and justifications / reasons thereof. Items to be covered may include exploration, mine development, exploitation, afforestation programme, reclamation & rehabilitation, control of dust, noise & ground vibrations and any other significant feature.

(c) Review of the compliance position of conditions and stipulations imposed, if any, while approving the mining plan. In case of non- compliance / partial compliance, detailed justifications / reasons thereof may be furnished along with proposal for compliance in the ensuing period.

(d) Review of compliance of violations pointed out after inspections made under MCDR,1988 during last 5 years. The position emerging out of the yearly review of the mining plan while checking up implementation of the mining plans in the field shall also be taken note of at this stage.

(e) Any other points requiring attention in the interest of proper mine design, development & conservation and environment & ecology of the area.

PART-II

2.0 PROPOSAL UNDER SCHEME OF MINING FOR THE NEXT FIVE YEARS

2.1 Name and address of the applicant.

2.2 Name and address, registration number of the recognised qualified persons

together with validity date / person employed under rule 42(1)(b) who has prepared the mining scheme.

2.3 Mineral(s) to be mined

2.4 Area and date of expiry of lease.

2.5 Date of expiry of 5 years period for which approved on the last occasion.

3.0 RESERVES

3.1 Categorywise (proved, probable and possible) reserves estimated in the earlier mining plan with grade.

3.2 Depletion of reserves.

3.3 Additional reserves established categorywise (with basis and parameters considered).

3.4 Categorywise updated reserve with grade (indicate end use grade with analysis) as well as marginal grades.

Please furnish the following :

i) An updated surface geological plan showing quarry limits and exploration carried out so far including exploration carried out during the last five years as well as exploration proposed to be carried out in next five years (different colours / standard codes to be used). In case of underground mines, an updated plan showing the underground workings and proposals for exploration from underground working.

ii) Updated transverse sections at suitable intervals and longitudinal section showing geology of the deposits and extent of mining operations.

iii) An updated assay plan (grade distribution plan) for underground / opencast mine.

4.0 CONCEPTUAL MINING PLAN

Salient features of an updated / modified conceptual plan of the mine covering the period of anticipated life of the mine, depicted on mine geological plans and sections with necessary statement annexed supported by essential text, covering the basic & long term design features of mine covering exploration, mine development, optimum exploitation & utilisation of the mineral, waste & sub-grade mineral management, and environmental aspects. The ensuing five year detailed programme should but be a part of the conceptual overall mining plan.

5.0 MINING

5.1 Salient description of the present mining methods.

5.2 Yearly pit-wise development plan proposed for the next five years, depicted on plans and sections (ore and overburden to be shown clearly along with geological formations encountered depicting also the design and layout of the mine benches in case of opencast mining).

Similarly proposals for development and / or stoping for underground workings, yearwise, for next five years.

5.3 Yearwise production plan proposed for next five years alongwith grade. Blending proposal, if any, may be indicated.

5.4 Any change in proposed method of mining and deployment of machinery, together with reasons thereof.

Please also furnish the following :

A list of mining machinery under use / proposed alongwith projected norms of performance / output for individual main items of equipment / machinery.

6.0 HANDLING OF WASTE / SUB-GRADE MATERIAL.

6.1 Rate of yearly generation of waste and proposals for disposal of waste for next five years. (indicate sequence of dumping with necessary plans and sections).

6.1.1 Build up of dumps from year to year to be shown in yearly plans and sections with description of the method & manner of disposal of waste rock, designed capacity & height of individual dump and precautions envisaged for confinement of the dumps together with design details of the protective works.

6.2 Rate of yearly generation of sub-grade mineral with reference to threshold values and proposals for stacking for next five years, (submit necessary plans / sections). (In case variations from the recommended threshold values of IBM, please give aequate justification and reasons).

6.3 Quantity and grade of sub-grade material available at the mine as on date duly supported by plans and sections and descriptive statement inclusive of the precautions adopted for storage.

7.0 USE OF MINERAL

7.1 Changes proposed in the use of mineral, if any, with reasons.

7.2 Changes in the specification, if any, imposed by the user industries and / or specifications required in the case of new user industries, if any, to be given.

7.3 Efforts made for utilisation of the sub-grade mineral including fines.

8.0 MINERAL BENEFICIATION

8.1 Results of any beneficiation investigations conducted and changes made in existing mineral beneficiation plant and tailing disposals , if any, with benefits expected (necessary flow - sheet and tailing dam designs etc. to be submitted as applicable).

8.2 Beneficiation test done, if any, on sub-grade mineral including fines and proposals for installation of new or additional beneficiation facility, if any (furnish process details in brief along with expected tailings loss).

9.0 ENVIRONMENTAL MANAGEMENT PLAN

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| Salient items to be covered under column nos. 2, 3 & 4 are as under | Proposals as per approved mining plan (indicate date of approval of mining plan) | Position at the end of 5 years of mining plan period (justification to be given for any marked deviation) | Proposals for the next 5 year plan period. |
| - Top soil storage, preservation and utilisation | | | |
| - Land reclamation and rehabilitation | | | |
| - Waste dump management | | | |
| - Afforestation programme with precautions proposed for survival & protection of plantation | | | |
| - Quality of air | | | |
| - Quality & make of water including surface & ground water | | | |
| <table border="1"> <tr> <td data-bbox="349 756 600 1165">- Noise level - Vibration</td> <td data-bbox="600 756 836 1165">Sources of noise to be identified. Pattern of blastholes & design of blast with details of sufficient number of experimental blasts conducted to be given</td> </tr> </table> | | | |
| - Noise level - Vibration | Sources of noise to be identified. Pattern of blastholes & design of blast with details of sufficient number of experimental blasts conducted to be given | | |
| - Treatment of mine water and affluent / toxic substances before discharge | | | |

10. ANY OTHER INFORMATION

Results of any investigation carried out for scientific mining, conservation of minerals and protection of environment; future proposals, if any.

Prepared by
Recognised Qualified Person or a
person employed under clause (b) of
sub-rule (1) of rule 42 of MCDR,1988