



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

**A GUIDELINE FOR A
MINING WORK PROGRAMME
TO BE SUBMITTED FOR
APPLICATIONS FOR A MINING RIGHT
IN TERMS OF THE MINERAL AND
PETROLEUM RESOURCES
DEVELOPMENT ACT, 2002,
(ACT NO. 28 OF 2002) (the Act)**

1. PREAMBLE

In terms of section 23(1) of the Act, the Minister must, subject to subsection 23(4), grant a mining right if-

- (a) the mineral can be mined optimally in accordance with the mining work programme
- (b) the applicant has access to financial resources and has the technical ability to conduct the proposed mining operations optimally
- (c) the financing plan is compatible with the intended mining operation and the duration thereof,
- (d) the mining will not result in unacceptable pollution, ecological degradation or damage to the environment,
- (e) the applicant has provided financially or otherwise for the prescribed social and labour plan,
- (f) the applicant has the ability to comply with the relevant provisions of the Mine Health and Safety Act, 1996 (Act No 29 Of 1996); and
- (g) the applicant is not in contravention of any other relevant provision of the Act. And
- (h) the granting of such right will further the objects referred to in section 2(d) and (f) and in accordance with the charter contemplated in section 100 and the prescribed social and labour plan.

This guideline is intended to assist applicants to comply with the aforesaid granting criteria insofar as they relate to other relevant provisions of the Mineral and Petroleum Resources Development Act and Regulations, through the compilation of the prescribed mining work programme to be submitted together with any application for a mining right in terms of regulation 11 of the Regulations.

Please note that the various sub regulations of Regulation 11 are intended to provide detailed supporting information to the cash flow forecast required in terms of Regulation 11(g) (vi). The said supporting information is essential for the verification of the information presented in the prescribed cash flow forecast, and compliance cannot be achieved without such supporting information.

2. COMPILATION OF A MINING WORK PROGRAMME IN ACCORDANCE WITH REGULATION 11

The mining work programme is intended to be a consolidated document which can be registered together with the mining right should it be granted. Applicants must therefore please not merely refer to other documents or annexures submitted with the application. Please ensure that the information required is placed correctly in

the relevant sections of the work programme, in the order required in accordance with the provisions of Regulation 11, as follows-

3. REGULATION 11(1) (a) - Full particulars of the applicant

Compliance requires the inclusion of the full particulars of the applicant, which particulars must be a duplicate of those referred to in part A and part C of the application form, (form D, Annexure I). The applicant must ensure that the contact person and correspondence address for the application are those of an authorised representative of the company who can be officially corresponded with in terms of compliance during the application process and, where applicable, after a right has been granted.

4. REGULATION 11(1) (b) - Plan contemplated in regulation 2(2), showing the land and mining area to which the application relates.

Compliance requires the inclusion of a duplicate of the plan contemplated in Regulation 2 (2).

5. REGULATION 11(1) (c) – A registered description of the land or area to which the application relates.

Compliance requires the inclusion of a duplicate of the information contained in Part D of Form D, Annexure I of the application for a prospecting right.

6. REGULATION 11 (1) (d) - Details of the identified mineral deposit concerned with regard to the type of mineral or minerals to be mined, its locality, extent, depth, geological structure, mineral content and mineral distribution.

The applicant is required to provide a detailed description of the identified mineral deposit concerned with regard to the type of mineral to be mined, its locality, extent, depth, geological structure, mineral content and mineral distribution, supported by a tabulated categorization of proven and probable reserves, **cross referenced to supporting reserve plans over the area applied for.**

This information, together with that required in terms of Regulation 11(1) (f) must serve to provide the necessary verification of the production rates reflected in the cash flow forecast required in terms of regulation 11(g) (vi).

The aforesaid information **must include and be cross referenced to a mineral resource map** and include, but not be limited to-

- i. the mineral to be mined;
- ii. the locality of the mineral deposit in relation to the nearest town/city;
- iii. the locality of the mineral deposit relative to the mining area,
- iv. the information required in terms of regulation 8 in cases where the application was preceded by a prospecting right,
- v. existing exploration results and supporting geological reports,
- vi. a brief description of the geological structure of the mineral deposit;
- vii. the size of the deposit,
- viii. the depth of the mineral deposit below surface;
- ix. details of proven and probable reserves, taking into consideration previous mining and extraction rates,
- x. estimated grades, and a reserve statement that can be understood relative to the mineral resource map,

7. REGULATION 11(1) (e) - Details of the market for, the market's requirements and pricing in respect of, the mineral concerned.

This regulation requires the determination of the price assumptions to be used in the prescribed cash flow forecast required in terms of regulation 11 (1) (g) (vi), supported by the relevant market conditions affecting the pricing of the minerals concerned. The aforesaid information should typically include, but should not be limited to-

- i. A list of products and their proportionate quantities
- ii. A list of product consumers,
- iii. For each specific product, give an indication of whether the market is :-
 - a. Local
 - b. Regional
 - c. International

- iv. Details of infrastructure requirements such as roads, rail, electricity and water,
- v. Contract details such as:
 - a. Duration
 - b. Annual consumption
 - c. Quality specifications
 - d. Uses
 - e. Prevailing market prices
 - f. Selling arrangements.
- vi. A detailed explanation of the price assumptions together with supporting specialist analyses and forecasts where applicable.

The price determined must be transferred into line item 2 of the cash flow forecast required in terms of regulation 11(g) (vi).

8. REGULATION 11(1) (f) - Details with regard to the applicable timeframes and scheduling of the various implementation phases of the proposed mining operation, and a technically justified estimate of the period required for the mining of the mineral deposit concerned.

The applicant is required to provide detail with regard to the applicable timeframes and scheduling of the various implementation phases of the intended mining operation, and a technically justified estimate of the period required for the mining of the mineral deposit concerned. The information required to meet the requirements of the regulations must include, but should not be limited to

- i. The various construction and implementation phases from the planning stage up to the commencement of full production,
- ii. A production forecast based on the reserve statement and the expected extraction, recovery and residue rates, which explains the sources of production over the period reflected in the cash flow forecast.
- iii. A justification, based on proven and probable reserves and on production rates of the period over which the mine is expected to remain in production.

This information, must serve to provide the necessary verification of the production rates reflected in the cash flow forecast required in terms of regulation 11(g) (vi).

9. REGULATION 11(1) (g) (i) - Details and costing of the mining technique, mining technology and production rates applicable to the proposed mining operation.

Compliance with the aforesaid regulation requires the applicant to provide the basic design and costing of the mining operation, which information must include, but should not be limited to -

- i. A map indicating the basic mine design together with a description of how, and in what sequence, the mineral reserve will be extracted, including the specific mining techniques to be used such as -
 - a. Opencast mining, underground mining, excavating and loading, drilling and blasting, monitoring, conventional mining, trackless mining, block caving, shrinkage, pumping, dredging, or any other technique to be used.
 - b. Equipment and machinery, stores and materials, electricity, water, maintenance, consumables and any other costs.
 - c. The position of access roads, shafts or declines, workshops, offices and stores, pumping facilities, primary development or pit design, processing plant locality, residue deposition sites, topsoil storage sites, stockpiles, waste dumps, and any other basic mine design features.
- ii. A description of any specific engineering constraints that may be anticipated in accessing and extracting the mineral resource, such as groundwater management, flooding, surface protection, fly rock risks, seismicity, or any other identified constraints.
- iii. A description of planned engineering solutions to any constraints identified.
- iv. A forecast of annual production rates;
- v. Information as to whether the mining operation or part thereof is to be contracted out, and
- vi. The annual operating costs of mining (excluding capital, labour and processing plant costs) in a cash flow format together with a detailed explanation of the relationship of these costs to the mining method to be used to extract the mineral deposit.

The costs thus derived must be clearly explained and used to justify the numbers that are reflected in line item 4 of the cash flow forecast required in terms of regulation 11 (1) (g) (vi).

10. REGULATION 11(g) (ii) - Details and costing of the technological process applicable to the extraction and preparation of the mineral or minerals to comply with market requirements.

Compliance with Regulation 11(1) (g) (ii), requires the applicant to describe-

- i. The full range of mineral commodities or products that are to be produced by the mine,
- ii. the basic design, supported by a process flow diagram, of any-
 - a. metallurgical extraction process,
 - b. washing plant,
 - c. mechanical sorting, crushing or screening plant, or
 - d. any other plant or process, that may be required to extract the products or commodities that are to be produced to meet market requirements,
- iii. An explanation of the efficiency of the process, together with an estimate of the mineral recovery rate, and the expected mass or volume of mine waste or residues,
- iv. The annual operating costs, in a cash flow format, of the aforesaid mineral processing plant, together with a detailed explanation of the relationship of these costs to the specific methods to be used to extract the mineral commodity or mine product from the mineral deposit, and to dispose of mine waste or residues.

The costs thus derived must be clearly explained and used to justify the numbers that are reflected in line item 5 of the cash flow forecast required in terms of regulation 11 (1) (g) (vi).

11. REGULATION 11 (1) (g) (iii) - Details and costing of the technical skills and expertise and associated labour implications required to conduct the proposed mining operation.

Compliance requires that this section is compatible with the information contained in the Social and Labour Plan, and must show -

- i. The entire organizational structure required to operate the mine, including services, whether parts thereof will be outsourced or not,

- ii. The respective skills requirements to conduct the proposed mining operations,
- iii. The number of people that will be employed in each skill category required to operate the mine.
- iv. The associated annual cost in respect of wages and salaries, and
- v. Information as to whether any part of the mining operation is to be contracted out, including -
 - a. the necessary organizational structure for such a contract,
 - b. the respective skills requirements for such a contract, and
 - c. persons in each skills category for such a contract,
 - d. the annual cost of wages, salaries, and directors fees of such a contract
 - e. the annual cost of such a contract, and
 - f. how it will be ensured that compliance with applicable mining legislation will be maintained in such circumstances.

The costs thus derived must be clearly explained and used to justify the numbers that are reflected in line item 6 of the cash flow forecast required in terms of regulation 11 (1) (g) (vi).

12. REGULATION 11 (1) (g) (iv) - Details and costing of regulatory requirements in terms of the act and other applicable law, relevant to the proposed mining operation.

Compliance requires that the applicant provides information regarding the cost of Government regulation that will become a cost to the mining operation, including, but not limited to the following-

- i. Environmental management and rehabilitation costs, which costs must, in compliance with the provisions of section 39(4)(a)(iii) of the Act, be presented in an annual cash flow format, and must be a realistic estimate of both the ongoing environmental management cost, and the environmental rehabilitation cost, which estimate must later be substantiated by the Environmental Management Programme, In this regard please provide the following information:
 - o Refer to Regulation 54(1) 2 and complete the standard guideline document developed for financial provision. Complete 10 forecasts (one for each year of operation) and to then determine the progressive total in year 10 (excluding concurrent rehabilitation). The progressive total determined for Year 10 must be transferred to Table I as a cost in the first

year. Attach 10 forecast plans. (one for each year of operation)

- ii. Royalty payments, which must be substantiated by the annual rate of production which has been planned,
- iii. Mine Health and Safety Regulations, which include, among others, the drawing up of prescribed mine plans,
- iv. Occupational health,
- v. Rates and taxes, and
- vi. National Skills Fund,

The costs thus derived must be clearly explained and used to justify the numbers that are reflected in line item 7 of the cash flow forecast required in terms of regulation 11 (1) (g) (vi).

13. REGULATION 11 (1) (g) (viii) - provisions for the execution of the social and labour plan

Compliance with this sub-regulation read together with regulation 46 (1) (e) requires the applicant to provide financially for the implementation of the Social and Labour Plan in terms of the implementation of -

- i. Human resource development programme,
- ii. Local economic development programme, and
- iii. The processes to manage downscaling and retrenchments.

The abovementioned costs must be reflected as per the Social and Labour Plan.

The costs quantified in the aforesaid categories must be presented in an annual cash flow format that justifies the numbers that are reflected in line item 8 of the cash flow forecast required in terms of regulation 11 (1) (g) (vi).

14. REGULATION 11(g) (v) - Details regarding other relevant costing, capital expenditure requirements, and expected revenue applicable to the proposed mining operation.

Compliance requires that the applicant provides-

- i. A list of all other annual costs which may not be provided for elsewhere in the standard format of the cash flow forecast.
- ii. A complete cost list of all capital items, which list must be compatible with the capital items identified to implement the mine design and processing plant design referred to in terms of regulations 11 (1) (g) (i) and (ii) above, respectively.
- iii. The total capital cost which must be stated in the year in which it is to be incurred,
- iv. The expected expenditure on any ongoing capital investment to be made in the year in which it is expected to be incurred, and
- v. Costing details of any contingencies not specifically catered for in these regulations.

The costs thus derived must be clearly explained and used to justify the numbers that are reflected in line item 9 of the required cash flow forecast in terms of regulation 11 (1) (g) (vi).

15. REGULATION 11(g) (vi) - A detailed cash flow forecast and valuation, excluding financing of the proposed mining operation, which forecast must also clearly indicate how the applicable regulatory costs will be accommodated therein.

In order to comply with the provisions of sections 23 (1) (a), (b), (c), (d) (e) and (f) of the Act, read together with Regulation 11, the Mining Work Programme must present a detailed cash flow forecast and valuation, excluding financing, of the mining operation required by Regulation 11 (1) (g) (vi) in accordance with the following format and line items –

CASH FLOW FORECAST AND VALUATION (REGULATION 11 (g) (vi))												
	ITEM	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Total
1	REGULATIONS 11(1) (d) and (f) PRODUCTION											
2	REGULATION 11(1) (e) PRICE											
3	REVENUE											
4	REGULATION 11(1) (g) (i) MINING COST											
5	REGULATION 11(1) (g) (ii) TECHNOLOGY COST											
6	REGULATION 11(1) (g) (iii) TECHNICAL SKILLS COST											
	WAGES (Excluding HRD cost)											
7	REGULATION 11(1) (g) (iv) REGULATORY REQUIREMENTS ENVIRONMENTAL COST											
8	REGULATION 11 (1)(G) (viii) SOCIAL AND LABOUR PLAN COST											
9	REGULATION 11(1) (g) (v) CAPITAL AND OTHER											
10	WORKING PROFIT/LOSS	(R'000)	(R'000)	R'								
11	TAX			R'								
12	NET CASH FLOW	(R'000)	(R'000)	R'								
13	DISCOUNTED CASH FLOW	(R'000)	(R'000)	R'	NPV							

The content of each line item contained in the aforementioned format must be explained in detail in order to comply with the relevant provisions of Regulation 11. The requirements of Regulation 11 will not be met by simply referring to the cash flow forecast when explaining the said line items, in that their purpose is precisely to justify and explain the numbers used in the said forecast. The numerical content of the specified line items must, therefore, be fully justified and informed by a detailed derivation as described above for the purpose of meeting the requirements of Regulations 11(1) (d), (e), (f), and (g) (i), (ii), (iii), (iv), (v) and (viii).

16. REGULATION 11 (g) (vii) - Details regarding the applicant's resources or proposed mechanisms to finance the proposed mining operation, and details regarding the impact of such financing arrangements on the cash flow forecast.

Compliance requires that the applicant shows how the foregoing cash flow forecast required in terms of regulation 11(1) (g) (vi) will be financed. The applicant is therefore required to -

- i. Identify the applicable start up cost requirements as identified in comparison with said cash flow forecast,
- ii. Identify any negative amounts in the cash flow which would require financing. The purpose of this section, therefore, is to
- iii. Explain how the identified funding requirement will be provided for, and
- iv. Provide the necessary evidence that the required funding has been secured.

Funding a project could be available in a large variety of ways, such as current assets, retained earnings, loan finance, mezzanine finance, or equity. The applicant is required to-

- i. Show, in cash flow format, how such financing will impact on the foregoing cash flow forecast and valuation.
- ii. Provide conclusive evidence that the applicant has the identified amount available, or
- iii. Any other particular party has resolved or undertaken to provide the identified amount, or
- iv. Any other particular party has underwritten the identified amount, and
- v. Provide the necessary documentary evidence that the applicant or the other particular party referred to above has the means to provide or underwrite the identified amount.

17. REGULATION 11(h) - an undertaking, signed by the applicant, to adhere to the proposals as set out in the mining work programme.

The mining work programme becomes an obligation of the holder of a mining right, in terms of Regulation 11(2) and the applicant is required to sign an undertaking to adhere to the proposals as set out therein.

- END -