THE MINING INDUSTRY PROMOTES SUSTAINABILITY THROUGH FINANCIAL PROVISIONS FOR MINE REHABILITATION AND CLOSURE

DRDGOLD – Mine reclamation

POSITION PAPER

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MINERALS COUNCIL
SOUTH AFRICA

CONTENTS

A closure/rehabilitation plan has become part of the requisite documentation that is submitted to the regulatory authority for approval when applying for environmental authorisation.

Anglo American Platinum – Mogalakwena

INTRODUCTION

Closure is a term used to describe several facets associated with the cessation of mining activities and the **'shutting down'** of a mine.

Mine closure is usually planned and refers to the various actions that need to be taken which include:

Physical infrastructure of a mine

Natural environment

Socio-economic development

Employees – labour issues

Financial implications

"Legislation imposes a requirement to maintain and retain financial provision until issued with a closure certificate."

In certain instances, however, closure can be unplanned due to various socio-economic and technical conditions.

This position paper focuses on the financial provision requirements in terms of the legal and policy framework concerning both the planned and premature environmental closure aspects of a mine.

AngloGold Ashanti – Mponeng

MINING AND FINANCIAL PROVISION STATISTICS

The mining sector accounts for more than

27%

of the country's merchandise exports

Directly the industry contributed

8.3%

to gross domestic product (GDP) in 2019

R376 billion

Total contribution to the South African economy

As of 2019, member companies of the Minerals Council have put in place a total sum of

R48.9 billion

for rehabilitation of disturbed environment sites

South Africa is a world leader in the production of several key minerals, including platinum group metals, gold, coal, iron ore, diamonds, manganese, chrome and titanium.

The mining sector accounts for more than 27% of the country's merchandise exports. In some years, the mining sector on its own earns the equivalent of half the entire foreign exchange reserves of the country, annually ($25 billion).

Almost one fifth of South Africa's economy is dependent on the mining sector. Directly the industry contributed 8.3% to gross domestic product (GDP) in 2019, but this more than doubles when including the mining supplier industries and downstream industries using mining outputs.

In 2020, the Minerals Council completed a survey of its member companies to gather intelligence on the amount of financial provision – according to the definition in this document – provided for by the companies for environmental rehabilitation.

A total of 39 member companies across 192 individual mining operations submitted information for this survey. In terms of the Minerals Council membership, these companies constitute 61% of member mining companies (associations and contractor members excluded).

In collating the numbers there are no assumptions made, given that the numbers are a simple aggregation of the information reported by the member companies, across the different instruments.

MINING AND FINANCIAL PROVISION STATISTICS

CONTINUED

As of 2019, member companies of the Minerals Council have put in place a total sum of R48.9 billion which is being set aside in the various financial vehicles earmarked for rehabilitation of disturbed environment sites (refer to table alongside for details). This demonstrates the commitment and responsible behaviour by the current mining companies towards rehabilitation and overall environmental management and to the citizens of the country, thereby making sure that mining matters to all South Africans.

To give context to the magnitude of the amount provided by the mining companies, in 2019, the total mining sector contributed R376 billion to the South African economy, which implies that the financial provision funds provided for account for as much as 13% of annual mining GDP. Although it is acknowledged that the full R48.9 billion is not a recurring annual provision, the quantum relative to mining GDP is evidence of the commitment by mining companies to their environmental obligation.

Financial guarantees account for R28.4 billion or 57.9% of funds provided, and are a preferred financial instrument. They offer mining companies the flexibility of providing assurance on meeting their environmental obligations without tying up massive cash balances. Trust funds and cash deposits account for 38.4% and 1.3% respectively.

Financial provision split across financial instruments
(Minerals Council members)

Financial provision	R million	Percentage (%)
Financial guarantee	28,387	57.9
Trust fund	18,798	38.4
Cash deposit	608	1.3
Other (including provisions for smelters)	1,196	2.4
Total	**48,990**	**100.0**

Source: Minerals Council South Africa

The table below indicates the split of the financial provision across the different commodities, with environmental provision for PGM mining accounting for the most at R13.6 billion or 27.8%. Notably, the top five commodities which make up 85% of the financial provision, also mirror the same commodities that make up total mineral sales.

Financial provision split across the commodities

Commodity	R million	Percentage (%)
PGMs	13,611	27.8
Coal	13,102	26.7
Gold	10,769	22.0
Iron ore	4,178	8.5
Diamonds	1,866	3.8
Copper	1,761	3.6
Chrome	1,024	2.1
Ferro chrome	751	1.5
Heavy minerals sands	669	1.4
Zinc	295	0.6
Cement	229	0.5
Manganese	227	0.5
Refractory minerals	219	0.4
Nickel	206	0.4
Exploration	81	0.2
Total	**48,990**	**100.0%**

Source: Minerals Council South Africa

FINANCIAL PROVISION FOR REHABILITATION AND MINE CLOSURE

Since the initial conception of the 2015 NEMA Financial Provision Regulations, a shift has taken place in thinking and approach regarding the method of calculation of the total amount needed to carry out mine closure and rehabilitation; and the amount that must be available at any point in time to cover the environmental liability for assurance purposes.

Although the 2015 Financial Provision Regulations are currently in force and applicable to mining right applicants, most of the financial provision funds are those made available by the existing mining right holders in terms of the requirements of the MPRDA and its regulations. The transitional provisions in the NEMA and its Regulations recognise that mining right holders who comply with the MPRDA, (Act No. 28 of 2002) and with the repealed MPRDA Regulations 53 and 54 that dealt with financial provision for mine rehabilitation and closure, are compliant for purposes of the NEMA and Financial Provision Regulations. Regulation 54 of the MPRDA Regulations set out the methodology for determining the quantum of the financial provision, required for rehabilitation, closure and ongoing post-closure management. The quantum was to be determined in accordance with the 2005 DMR Guideline (Guideline Document for the Evaluation of the Quantum of Closure Related Financial Provision Provided by a Mine).

"Financial guarantees which account for R28.4 billion (57.9%) of funds provided, are a preferred financial instrument."

FINANCIAL PROVISION FOR REHABILITATION AND MINE CLOSURE CONTINUED

Vehicles for financial provisioning for rehabilitation and mine closure

Regulation 53 of the MPRDA regulations set out the vehicles that could be used to make the financial provision. These vehicles have been included in the NEMA and Financial Provision Regulations. The following vehicles are recognised:

CASH DEPOSIT INTO AN ACCOUNT ADMINISTERED BY DMRE

In such a case, the prospecting/mining company is required to deposit funds into an account specified and administered by the Director General in the format that is approved by the Director General. Although the funds are intended as security (and are presumably earmarked solely for rehabilitation purposes for the particular prospecting/mining company's operations if required), it would be only upon written application by that company, accompanied by motivation and to the satisfaction of the regulators, that a company would ever be able to recover the funds and only on the closure/cessation of the operation.

Method:

This method has been used by smaller operations (usually where holders of prospecting rights or mining permits have been involved) and has not been preferred by bigger mining companies because it locks away funds that could possibly be used for the planned mine closure activities. It is not clear to what extent there is visibility by the company over these funds and their growth whilst held in the account by the Department, other than that on the annual revision of the quantum, the amount required to be provided may increase from the base amount when the annual reassessment takes place.

Bauba Platinum – Moeijelijk Chrome Mine

FINANCIAL PROVISION FOR REHABILITATION AND MINE CLOSURE CONTINUED

Vehicles for financial provisioning for rehabilitation and mine closure continued

CONTRIBUTIONS TO A REHABILITATION TRUST AND TRUST FUNDS

A rehabilitation trust can be established by a mining company and funds can be secured through the rehabilitation trust. A rehabilitation trust is formed according to a trust deed that complies with relevant legislation and is filed in the Master's Office. Such a trust (as well as any rehabilitation company created for this specific purpose) is recognised in the Income Tax Act (ITA) (Section 37A) as an acceptable vehicle through which security for financial provisioning can be made by the founders of the trust. Funds held by a rehabilitation trust are referred to as the trust fund. Section 37A (as well as the trust deed) specifies exactly what such a trust's purpose must be and the oversight requirements to administer the trust, and manage trust funds, on the part of the trustees. The advantages for a mining company of establishing a rehabilitation trust and making provision in this manner is the tax benefit achieved with regard to the receipts within the trust itself and the deductibility of amounts paid into the trust provided this meets, and continues to meet the prescribed requirements in the ITA.

The sole object of any such trust and the accumulation of its funds can only be for:

- rehabilitation upon premature closure
- decommissioning and final closure
- post-closure coverage of any latent or residual environmental impacts to ensure on the part of the beneficiaries of the trust, that the required legislated obligations for any environmental impacts and the rehabilitation requirements of the specified mining company are discharged by the beneficiary mining company in the final closure of operations

The beneficiary is legally obliged after the cessation of the mining to carry out the rehabilitation and closure requirements in terms of the prevailing legislation and to bring the mine impacted area back to the agreed environmental state. Many major mining companies use trust funds in this manner and in some cases have centralised them at a corporate level for rehabilitation and closure purposes where more than one operation applies.

FINANCIAL PROVISION FOR REHABILITATION AND MINE CLOSURE CONTINUED

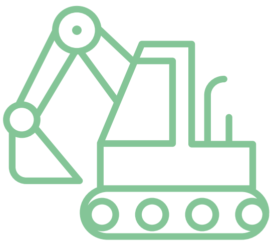
FINANCIAL GUARANTEE

Companies can opt to obtain a financial guarantee (from bank or insurer) product to cover the quantum assessed as required by the DMRE for covering rehabilitation costs associated with their environmental liabilities.

Requirements:

For the financial guarantee to be accepted it has to meet the requirements of the DMRE including the prescribed template for example, in the case of the financial guarantee referred to in 2015 Financial Provision Regulations, has to come from a financial institution registered with the Financial Services Board as an insurer or underwriter. This guarantee must be issued in favour of the DMRE and is payable on demand by the issuer when the mining company is not able to fund the rehabilitation costs either when executing the mine closure plan or in the event that the mine closes prematurely. The financial institutions only provide the guarantee, when satisfied with the credit risk of the mining entity that seeks the guarantee. This method of financial provision has been used by mid and larger mining companies. In cases where the mining company has a number of operations, the issuer may consider the company's overall balance sheet to determine the risk to providing the security and for the backer bank to issue the guarantee.

ANY OTHER METHODS AS THE DIRECTOR GENERAL MAY DETERMINE



Vehicles under this category may include parent company surety/ guarantee if approved by the Director General, or insurance. Whilst this possibility was catered for in the MPRDA Regulations, other methods were rarely approved by the Director General, notwithstanding industry approaches to the DMRE that were made for companies to be able to use such methods. The risk that the liability would accrue to the state appeared to be the justification for refusing to consider any other method.

Minerals Council members have adequately utilised these methods to meet their legislative obligation for financial provision. In some cases, the provision has been made through a combination of one or more of these methods.

FINANCIAL PROVISION FOR REHABILITATION AND MINE CLOSURE CONTINUED

Adequacy of financial provision and progress on rehabilitation

It is both a regulatory requirement, and accepted practice with Minerals Council member companies that once granted a prospecting or mining right, the company remains responsible for carrying out the rehabilitation of that disturbed site as specified in the EMP during the operational phases of mining and at closure or should the operation be forced to close prematurely or not be able to carry out the rehabilitation for any reason, for the financial provision to be used.

To ensure the adequacy of financial provision, a closure plan and an annual rehabilitation plan have become part of the requisite documentation that is submitted to the regulatory authority for approval when applying for the environmental authorisation or EMP prior to any work starting on the site and are used to inform the initial and annual consideration of the adequacy of the provision over the life of the operation and as closure becomes imminent. It is an increasingly common practice and a regulatory requirement for the closure plan to contain itemised details of the estimated costs of rehabilitation, where ongoing rehabilitation is to be done and for actions required for final closure, and that are in the final closure plan to be detailed and costed accordingly. The annual review of financial provision adequacy is also a legal requirement.

"In 2019 the mining sector contributed R376 billion to the South African economy."

FINANCIAL PROVISION FOR REHABILITATION AND MINE CLOSURE CONTINUED

Aspects of closure are contained both in the NEMA and its subordinate regulations, and in Section 43 of the MPRDA.

The closure requirements in MPRDA Section 43 and **Regulations 60 – 62** deal with the legislative approach to applying for a mine closure certificate, the need to ensure that closure considerations are factored into the planning and operational phases of mining projects and for the processes around environmental risk assessment when closure is imminent and the closure certificate is needed at the end of operations.

Regulation 62 of the MPRDA Regulations sets out the content requirements of a closure plan. Environmental assessment practitioners in compiling the required supporting documents needed for environmental authorisation must align the content of the closure plan required by the MPRDA with the NEMA Environmental Impact Assessment (EIA) Regulations and the content requirements set out therein for closure plans (Appendix 5 of the NEMA EIA Regulations).

The Minerals Council is of the opinion that:

issues such as environmental degradation in mining areas, high numbers of ownerless and abandoned mines, and the incidence of acid mine drainage (AMD) can be avoided through improved environmental management and rehabilitation and by holding those responsible for the harm accountable. Although it is understood and acknowledged that a significant portion of current environmental impacts relate to abandoned mines, there is a clear need to ensure that current and any future mining activities do not add to unacceptable environmental impacts and impose costs on the society/state.

Achieving this requires ensuring that operational capability and capacity to manage the environmental impacts of mining are in place at mines, compliance is regularly monitored, and that the rehabilitation provided for in the EMP and closure plans is undertaken, financial provisions for rehabilitation and closure must be reviewed periodically and remain both adequate and available for use should failures result in any negative environmental consequences.

It has been alleged that, historically, mines did not provide adequately for the rehabilitation that would be required for pre-mature closure. Current operational member mines have sufficient rehabilitation funds in the provision kitty through the various vehicles discussed in this position paper. The current legislative requirement and variety of identified vehicles that can be used for financial provision has facilitated the mines to adequately provide for the required rehabilitation at planned closure as well as if premature closure should arise, and to cover any post-mining environmental impacts or liabilities.

In addition, the current operational mines have demonstrated significant progress on meeting rehabilitation obligations contained in their EMPs, by way of concurrent rehabilitation using their own operational budget to reduce end-of-life liabilities.

"Current operational member mines have sufficient rehabilitation funds in the provision kitty through the various vehicles."

HISTORIC LEGISLATIVE CONTEXT ON FINANCIAL PROVISION

Minerals Council members have been complying with the policy, legislation and regulation for mine closure over the years.

The legislative framework for closure, rehabilitation and overall environmental management in the mining industry has evolved to what is the current dispensation under the Minerals and Petroleum Resources Development Act (MPRDA) and National Environmental Management Act (NEMA) and its Regulations including the 2015 Financial Provision Regulations.

Historically early mining legislation such as the Minerals Act required that an applicant for mining authorisation submit an environmental management programme (EMP) demonstrating the manner in which any damage to the surface environment caused by mining operations would be ameliorated or rehabilitated. The details of what should be contained in the EMP, financial provision for EMPs and the closure plan were included in the regulations and various guidance documents and policies developed by the Department responsible for mining. The EMP needed to be approved thereby satisfying the authorities on the proponent's ability to manage and rehabilitate and restore the environment and as to the adequacy of any financial provision for this purpose. Ongoing responsibility existed until the issuance of a closure certificate freed the holder of the mining authorisation from any further liability. Financial provision required that the EMP focus on closure and post-closure commitments made as well as on premature closure.

The South African Constitution in 1996 and Section 24 in particular with its universal right to an environment that is not detrimental to the health and well-being of its citizens required legislation be put in place to protect the environment and secure ecological sustainable development and use of natural resources, while promoting justifiable economic and social development. The White Paper on Minerals and Mining Policy for South Africa in 1998 confirmed that new mining legislation was required for the mining industry which would be aligned to the Constitution and premised on the principles of integrated environmental management.

This lead to new mining legislation such as the MPRDA and environmental legislation such as the NEMA being enacted post the constitution, which give effect to the above policy principles as well as to Section 24.

CURRENT LEGISLATIVE CONTEXT FOR FINANCIAL PROVISIONING

The MPRDA, which came into effect in 2004, currently provides the statutory context for the issuing of mining rights including the requirement for closure, to govern the minerals industry. The mining right is not complete without the requisite environmental approval and no one may prospect or mine without an environmental authorisation (or approved EMP).

General environmental management principles as set out in the NEMA, 1998, and are applicable to all prospecting and mining operations. These inform the interpretation, administration and implementation of the MPRDA. Environmental requirements originally included in the MPRDA and now in the NEMA require that:

All prospecting and mining operations have an approved environmental authorisation/ EMP in place

Such operations rehabilitate the affected environment in accordance of the EMP and put in place financial provision for the rehabilitation, closure and post-closure management of the environmental impact brought about by their mining activity. The assessment of how much is needed must satisfy the Department responsible for mining at the time the approval is given and at the periodic reassessments thereafter, during the life of the operation until closure

"Financial provision funds provided for account for as much as 13% of annual mining GDP."

Although some of these obligations have since migrated out of the MPRDA and found their way into the NEMA through the One Environmental System (OES) and the consequent statutory amendments that took place, there remains a requirement in the MPRDA that mining right holders must be environmentally authorised and must conduct their activities through an issued environmental authorisation that is aligned with the NEMA requirements.

The EMP must include:

1. **An assessment of any environmental impacts and must describe the manner in which the holder would modify, remedy, control or stop any action, activity or process which would cause pollution or environmental degradation.**
2. **The implementation programme and action plans with the measures the holder would take to contain or remedy the cause of pollution or degradation and migration of pollutants, during all phases of mining and taking account of any prescribed waste or management standards or practices.**
3. **Must inform the determining of financial provision required in order to be able to close in an environmentally sustainable manner at the end of operations.**

CURRENT LEGISLATIVE CONTEXT FOR FINANCIAL PROVISIONING CONTINUED

"All prospecting and mining operations have an approved EMP in place."

The provisions of the MPRDA set out in Section 41 (until 2014 when Section 41 was repealed) and now in the NEMA, prescribe the need for financial provision to be adequate for the rehabilitation, closure and ongoing post-decommissioning management of mining's environmental impacts, and for it to be in place before the issuing of mining rights.

Before the Minister approves an environmental authorisation, the applicant for a prospecting right, mining right or mining permit must make the prescribed financial provision for the rehabilitation or management of mining's environmental impacts.

This legislative provision imposed a requirement to maintain and retain the financial provision until the Minister had issued a closure certificate (as contemplated in Section 43) of the MPRDA. Insofar as it is reasonably practicable, the holder must rehabilitate the environment affected by mining operations to its natural or pre-determined state, or to a land use which conforms to the generally accepted principles of sustainable development. The holder is responsible for any environmental damage, pollution or ecological degradation resulting from mining operations, and which may occur inside or outside the boundaries of the area to which such right relates and is responsible for any environmental liability, pollution or ecological degradation until issued with a closure certificate. The Minister can retain a portion of the financial provision even after the closure certificate had been issued, should rehabilitation of the closed mining operation be necessary because of latent or residual environmental impacts.

Section 46 of the MPRDA refers to measures that the Minister can call for, according to Section 45 (i.e. those measures required to prevent pollution or rehabilitate dangerous occurrences) if the holder of a right or his successor in title cannot be traced. The regional manager may instruct that these necessary measures be taken and be funded from the financial provision made by the holder, or if there is none or it is not sufficient, from money appropriated by parliament.

The One Environment System (OES)

Ever since the OES for the mining industry came into effect from 8 December 2014, environment-related aspects of mining or related activities are regulated in terms of the NEMA. The Minister responsible for mineral resources is recognised as the competent authority under the NEMA, to implement the provisions of the NEMA and Regulations promulgated thereunder, and to issue environmental authorisation for prospecting exploration, mining or operations in terms of the NEMA. The Minister responsible for environmental affairs is the appeal authority for the decisions taken by the DMRE Minister as it pertains to environmental issues. When the OES came into effect, it transferred the responsibility for policy formulation for mining environmental management, and necessitated amendments to the MPRDA and the NEMA. This included some aspects of regulating on closure and financial provisioning being transferred to the Department of Environment, Forestry and Fisheries (DEFF), formerly called the Department of Environmental Affairs and Tourism (DEAT). Provisions similar to those that were in the MPRDA relating to environmental management, the obtaining of an environmental authorisation and ensuring adequate financial provision are contained within Section 24 of the NEMA.

CURRENT LEGISLATIVE CONTEXT FOR FINANCIAL PROVISIONING CONTINUED

Legislation under development

Since the OES, legislative, regulatory, policy proposals and amendments affecting the mining industry have been passed, but some proposed amendments have not yet been finalised.
This includes the:

1

National Environmental Management Laws Amendment Bill, 14 of 2017 (NEMLA 4 Bill)

2

Revised National Environmental Management: Financial Provision Regulations for prospecting, exploration, mining or production operations

THE NEMA

When the NEMA:

Financial Provisioning Regulation for prospecting, exploration, mining or production operations was published in November 2015 for implementation, the mining industry experienced some implementation challenges.

NEMA ITERATIONS

After several engagements on the issues, various iterations of revised draft NEMA:

Financial Provision Regulations were published for comment, including on 10 November 2017 and 17 May 2019. No replacement Financial Provisioning Regulations have yet been gazetted so the flawed 2015 version remains the regulation.

New applicants for mining rights are expected to meet the requirements of the NEMA Financial Provision Regulations 2015, while existing holders of rights have a window period until 19 June 2021 in which to align with the new requirements and transition to the Financial Provisioning Regulations. In the interim, compliance with the arrangements regarding financial provisioning approved as part of the rights issued in terms of the MPRDA is regarded as compliance on the part of existing holders.

Challenges in calculating the quantum

The 2015 NEMA Financial Provision Regulations did not specify the methodology to be applied to arrive at the amount (quantum) to be set aside for financial provisioning purposes. In the past, the MPRDA Regulations 54 and 55 and the 2005 DMR Guideline were used to determine this quantum and to cater for the inclusion of factors relevant to the calculation such as provisional and general costs, contingencies, consumer price index (CPI) and value-added tax (VAT) in determining the quantum. In the various iterations of the proposed revised Financial Provision Regulations, these and other aspects relating to the proposed methodology have presented a challenge for the mining industry primarily because the proposals in the draft regulations increased the quantum and the amount to be provided, exponentially without a proper risk weighting. The implication this has for the industry is severe, as the required financial provisioning would be increased beyond that of a risk-based approach. The industry, together with government, has been working to resolve these challenges to the benefit of the environment and all the parties involved.

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