

# **MINE CLOSURE POLICY**

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### **1. INTRODUCTION**

Underpinning this standard is two of GNCC Capital, Inc.'s ("GNCC") values:

- The communities and societies in which we operate will be better off for GNCC Capital, Inc. having been there.
- We respect the environment.

Three components of GNCC's integrated environment and community policy are also especially relevant:

To achieve these values we will:

- comply with all applicable laws, regulations and requirements.
- manage efficiently and safely the resources under our stewardship and respect the values, traditions, and cultures of the local and indigenous communities in which we operate.

- ensure financial resources are available to meet our closure obligations.

Closure of all GNCC managed sites needs to be carefully planned and implemented in order to meet these commitments. Good closure planning is a value-adding exercise which reduces closure costs, optimizes post-mining land use options, and can help to reduce life of mine operating costs. The values statements recognize that social and environmental issues are interrelated and both affect how host communities perceive and remember a site and its parent company (ies) during and after closure; thus an integrated approach is necessary.

Guidance to assist sites to meet this standard is included in a Closure Guideline and a Financial Model for Mine Closure. In order to avoid repetition, reference to objectives, plans, etc., should be understood to include both environmental and social aspects.

## 2. OBJECTIVES

The objectives of this standard are to:

Ensure that GNCC Capital, Inc.'s exploration and operating sites are closed in line with host country requirements, if any, and the company's values, business principles and policies. Sites should be left in a condition which is safe, stable and minimizes adverse impacts on people and the environment.

Maximize the post-activity land use that provides an enduring, positive legacy for the landholder and local community, and

Align closure and operational planning throughout the mine lifecycle.

## 3. ACCOUNTABILITY AND RESPONSIBILITY

Accountability for implementing this standard lies with the General Manager, or equivalent, at the site. Responsibility for its implementation can be delegated to a designated person(s) who must clearly understand his/her role(s) and responsibilities. The person responsible for implementing the standard must be suitably qualified or experienced to undertake the task.

## 4. SCOPE

This standard defines the approach to closure planning at GNCC managed sites.

Exploration sites must adopt and comply with the provisions of this standard as appropriate to ensure cessation of activities in a manner that meets the standard's objective.

Where GNCC has no operational responsibility and an equivalent standard is not in place, the operator must be encouraged to apply this standard.

Onsite contractors and subcontractors are required to adopt this standard unless they have an alternative standard, approved in writing by GNCC Capital, Inc.

The International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold must be complied with in regard to closure requirements related to cyanide management.

The GNCC Tailings Management Framework and Heap Leach Management Framework must be complied with in regard to closure requirements related to tailings management and heap leach management, respectively, as applicable.

## **5. GUIDING PRINCIPLES**

The following principles underlie this standard:

Closure planning and implementation must comply with all applicable legal and other requirements;

Closure planning is a core business activity which starts during the exploration phase and continues throughout the life of mine;

Closure planning should be based on early consideration, assessment, evaluation and application of alternatives in order to minimize closure and post-closure liabilities;

Closure plan(s) should be flexible so as to identify and incorporate innovative approaches, new data and operational changes;

The operation is responsible for ensuring that its closure plan(s) are implemented;

Engagement of stakeholders and social partners is critical to successful closure planning; and

The key disciplines responsible for planning and execution at different stages of the mine lifecycle, for example mining, social and environmental management, engineering, feasibility and design planning; financial management, risk management and strategic planning, are all required to work together in an integrated way.

## **6. REQUIREMENTS**

### **6.1 Legal and Other Requirements**

Sites must plan and implement closure in compliance with all applicable laws, regulations and other binding obligations.

### **6.2 Risk Assessment**

The closure planning process must involve identification and assessment of the risks associated with closure of the site.

Measures proposed to be implemented during closure must be subjected to a risk assessment, as applicable, to assess whether they will be able to stand up to post-closure conditions.

The above assessments must take into account longer-term cycles and variations in the local climate.

### **6.3 Consultation and Communication**

The Stakeholder Engagement Management Standard must be used as the basis for engaging with stakeholders, as applicable.

Key stakeholders must be identified and consulted and their interests and views must be recorded and considered in developing the plans described in sections 6.5 following.

Engagement and communication with stakeholders regarding closure planning must be appropriate to the lifecycle stage of the site.

### **6.4 Closure Land Use Objectives**

Closure land use objectives must be developed and revised at appropriate intervals, in consultation with the host country government, at the national, provincial and local levels, as appropriate, and host communities.

Closure land use objectives must seek to ensure the long-term safety, health, function and viability of the affected communities and environments.

Closure land use objectives must inform site and rehabilitation designs, the selection of scientifically sound and economically feasible mitigation technologies to address physical, biological and chemical disturbance, and appropriate post closure monitoring.

The objectives must include, but are not limited to the following:

- 6.4.4.1 Minimize costs, but not at the expense of meeting the other objectives
- 6.4.4.2 Minimize pollution;
- 6.4.4.3 Remediate degraded areas, polluted soils and water;
- 6.4.4.4 Establish sustainable ecosystems;
- 6.4.4.5 Maximize the use of existing structures and infrastructure for future economic benefit;

- 6.4.4.6 Provide a safe environment; and
- 6.4.4.7 Facilitate sustainable livelihoods of affected communities, in accordance with the Social Investment and Local Economic Development Management Standard and the Stakeholder Engagement Management Standard, as applicable.

## **6.5 Conceptual Closure Plan**

Unless a site already has an interim or final closure plan, a conceptual closure plan must be prepared prior to project approval to ensure that closure is technically feasible and socially acceptable and that closure plans and costs are included in the project feasibility studies.

The conceptual closure plan identifies post-mining land use objectives, which enable the establishment of criteria to guide detailed design.

Contextual information comes from approvals, environmental and social impact assessment (ESIA) and feasibility studies, including stakeholder engagement.

## **6.6 Interim Closure Plan**

An interim closure plan must be prepared as required by the mining permit or license, or within three years of commissioning the site to ensure that it is consistent with closure land use objectives.

The interim closure plan must include, as a minimum, the following:

Site-specific objectives and performance targets, with a timetable for their achievement.

A list and assessment of risks and benefits associated with the preferred closure options.

A list of relevant legal obligations associated with site closure.

A rehabilitation plan to ensure effective rehabilitation of disturbed areas.

Completion criteria, which are indicators that, upon being met, demonstrate successful closure.

Completion criteria must be set in consultation with key stakeholders, reviewed periodically and modified if necessary.

Details of material characterization issues and their management.

A temporary closure plan (care and maintenance plan) – see section 6.11.

A decommissioning plan setting out how infrastructure and services will be removed, if appropriate, and contaminated soil and water will be remediated.

A post-closure monitoring program. Its duration must be determined through a risk assessment.

A stakeholder information and consultation plan.

A communication plan, targeted at internal and external stakeholders.

Information from and conclusions drawn from assessment of the knowledge base (see section 6.11).

A records and document management plan to ensure that these are retained and stored appropriately.

Closure cost estimates (see section 6.12).

Sufficient information to make decisions in the case of unplanned, premature closure.

## **6.7 Final Closure Plan**

The final closure plan is agreed with the regulatory authorities and prepared in consultation with stakeholders.

It must be finalized at least three years before closure is anticipated.

It must include, as a minimum, the following:

Updated, detailed information and plans listed in section 6.6.2.

Details of the skills required by the team tasked with implementing the plan, and when they will be needed.

Roles, responsibilities and timelines for achievement of objectives.

## **6.8 Alternative Options**

When closure plans are developed or revised, alternative options must be considered and evaluated in order to determine the most cost-effective option that meets this standard's requirements.

## **6.9 Review**

The intermediate closure plan must be reviewed and updated when significant changes are made to the operational plan or if key information, such as when relevant environmental or community studies become available.

The intermediate closure plan and knowledge base must be updated at least every three years.

In the last three years of operation, the final closure plan and knowledge base must be updated at least annually.

## **6.10 Rehabilitation Program**

A rehabilitation program must be developed to assess the extent of impacts on land and to develop, implement, monitor, assess and refine rehabilitation methodologies in line with agreed closure objectives and/or environmental permit conditions.

The rehabilitation program must address the phasing of concurrent rehabilitation and rehabilitation performed during the closure phase of the mine. Rehabilitation should be carried out as soon as possible in line with the closure objectives, without waiting for cessation of activities, in order to reduce operational and long-term environmental costs and liabilities.

Rehabilitation designs must be based on adequate and scientifically sound information and where relevant, integrated with site biodiversity and water management plans.

The rehabilitation program must include information on responsibilities for budgeting, developing, scheduling and executing detailed rehabilitation plans. Rehabilitation designs should be based on demonstrated technologies that constitute a low risk of failure, e.g. stable landforms for capped waste facilities, etc.

## **6.11 Temporary closure (care and maintenance)**

Care and maintenance is required for sites which must be temporarily closed. The care and maintenance plan must be updated and implemented immediately, taking into account the potential for future operations at the site.

The plan must document the legal obligations and notifications that may be required if the operation is placed on care and maintenance.

Plans to retain and maintain key infrastructure (including machinery) and prevent potential contamination from the operation must be implemented.

As far as possible, rehabilitation should be undertaken on disturbed areas that are a source of continuing pollution, even if it is possible that some of these areas will be disturbed in the future.

## 6.12 Knowledge Base

A knowledge base of the context in which the site is being developed or operates must be developed and maintained. It must include, but need not be limited to:

National, regional and local legal and regulatory requirements and site-specific permit and approval requirements for closure;

Characterization of the pre-mining and current socio-economic, cultural and environmental context, including information gained in technical studies, survey and monitoring data, risk assessments, research and stakeholder engagement exercises;

All agreements made with stakeholders;

An inventory of the site infrastructure, including legacies and potential contaminant sources; and

Applicable data and lessons learnt from other sites.

## 6.13 Financial Estimates

The estimated cost of implementing the closure plan must be updated at least annually in accordance with the GNCC Financial Model for Mine Closure.

## 7. GLOSSARY

- Closure is the period of time when the exploration or production activities of a site or part thereof have ceased, and final decommissioning and/or rehabilitation are carried out.
- Closure **plan** is a generic term and means the conceptual, intermediate or final closure plan, as appropriate.
- Completion **criteria** are specific to each site and reflect its unique set of environmental, social and economic circumstances. Where possible, they should be quantitative and capable of objective verification.
- Knowledge **base** means a database containing all the information referred to in 6.11, providing the means for collection, organization and retrieval of knowledge.
- Operation refers to a producing mine.
- Project refers to an exploration project or a new mine expansion.
- **Rehabilitation** is understood to mean the return of disturbed land to a safe, stable and self-sustaining condition. “**Reclamation**” and “**restoration**” are also used in some

countries.

- Site is used when referring collectively to operations and projects.
- A **stakeholder** is a person, group or organization with the potential to be affected by or to affect the process, or outcome, of closure of the site. Shareholders; employees, their families and employer representatives; communities in which we operate; business partners; and governments. Many stakeholders will be impacted by the outcome of the site's closure to a greater extent than those planning it.

## 8. REFERENCES

The following documents may be consulted for additional information:

- 8.1 International Council on Mining and Metals (2008): *Planning for Integrated Mine Closure: Toolkit*. <http://www.icmm.com/page/758/integrated-mine-closure>.
- 8.2 Australian Government Department of Resources, Energy and Tourism (2006): *Mine Closure and Completion*, part of the series "Leading Practice Sustainable Development Program for the Mining Industry". [http://www.ret.gov.au/resources/mining/leading\\_practice\\_sustainable\\_development\\_program\\_for\\_the\\_mining\\_industry/Pages/mineclosure\\_handbook.aspx](http://www.ret.gov.au/resources/mining/leading_practice_sustainable_development_program_for_the_mining_industry/Pages/mineclosure_handbook.aspx)
- 8.3 Australian Government Department of Resources, Energy and Tourism (2006): *Mine Rehabilitation*, part of the series "Leading Practice Sustainable Development Program for the Mining Industry". [http://www.ret.gov.au/resources/mining/leading\\_practice\\_sustainable\\_development\\_program\\_for\\_the\\_mining\\_industry/Pages/mine\\_rehab\\_handbook.aspx](http://www.ret.gov.au/resources/mining/leading_practice_sustainable_development_program_for_the_mining_industry/Pages/mine_rehab_handbook.aspx)