

**MINE CLOSURE PLANNING.
PAST PRESENT AND FUTURE**

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achieving sustainability

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Mine Closure Planning in 2004

An Overview
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Three Challenges

- **First Challenge** – Higher level of performance
- **Second Challenge** – A level playing field
- **Third Challenge** – Moving beyond environmental focus of closure to fully integrated closure planning

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While All Mining Projects Will Eventually Close, Reasons for Closure Vary

- Some are specific to the project
- Some affect the industry more generally
- Some are relatively predictable: others highly unpredictable

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Reasons Specific to Individual Projects Include:

- Exhaustion of easily accessible reserves
- Works damaged by accidents
- Technology becomes outmoded
- Competition from lower cost producers

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Closure Also Occurs As a Result of Political and Commodity Market Trends

- Silver – 1890s
- Nitrate – 1920s
- Uranium – 1960s
- Tin – 1980s
- Coal – Eastern Europe – 1990s

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Why Is the Fact That Mines
Will Close of Any More
Concern Than the Fact
That Shoe Factories or Office
Buildings Will Some Day
Close?

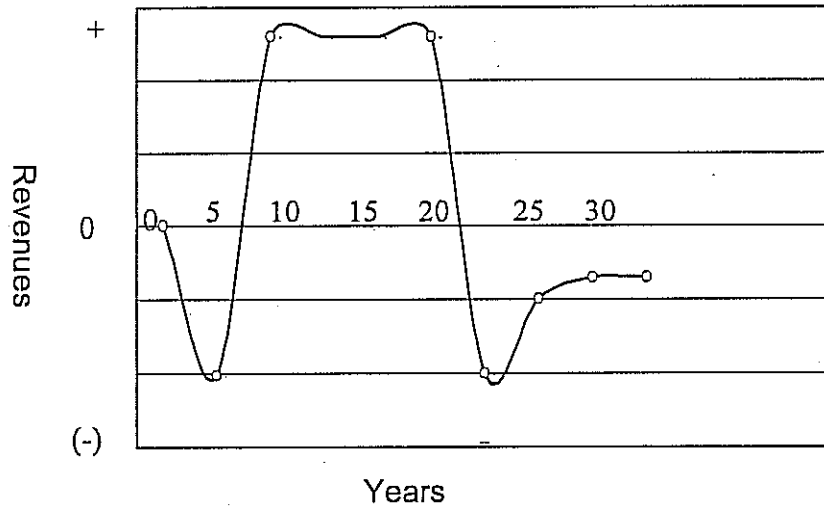
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Suggested Reasons for Closure Planning in Mining

- Scale of alteration of landforms
- Cost of re-establishing acceptable conditions on-site and off-site where precautions have not been taken
- Overwhelming importance to local economies – political stability
- Timing of revenues and costs

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Timing of Revenues



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Elements of a Fully Developed Regulatory Approach

Element	Element
Statement of Objectives	Financial Guarantee
Requirement for a Plan	Monitoring and Reporting
Process for Approval	Inspection and Enforcement
Public Participation	Certification of Closure
Modification of Plans	Post-Closure Responsibilities

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Closure Planning Has Had Important and Beneficial Effects

- “Most effective environmental management tool ever developed in the mining industry”
- Dramatically slowed the rate at which we add to the negative environmental legacy
- Made big strides in dealing with “closure resulting from bankruptcy”
- Led to great improvement in operational management
- Prevented some truly foolish projects from going forward
- Triggers tremendous innovation

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If Closure Planning Regulatory Systems Are So Helpful, Why Aren't There More of Them?

	Capacity	Competition
Countries	X	X
Companies	X	X

Countries – and Companies – in Many Cases Lack Capacity. And They Compete.

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In Many Mining Countries, the Majority of Output May Come From a Few Large Companies.

But Most Mining Employment Is in a Multitude of Small Enterprises.

Political Leaders Hesitate to Adopt Measures That These Smaller Enterprises Lack Capacity to Implement.

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Closure Related Costs Can Be Significant in Competition Among Companies

Company A

"The Old Reliable"

- Numerous current permit requirements for closure that will be expensive to meet
- A number of significant "perpetual" post closure cost centers
- Some potential massive "clean up" liabilities

Company B

"The Clean Slate"

- Existing operations will be closed on "voluntary/negotiated" basis
- No old sites with post-closure costs
- No potential massive "clean up" liabilities

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These Costs Can Be Significant As Countries Compete For Investment

Country A

- Legal obligation to fulfill a defined closure plan
- Bonding and guarantee requirements

Country B

- Closure discussed only in non-specific and non-binding terms
- Legal "guarantees" of no liability

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Challenges to a Word Bank Group Driven Process

- IFC or MIGA may be out of a project in 6 – 8 years. Closure oversight may be needed for 50 years.
- How do commitments survive change or ownership?
- Who sets the amount of the guarantee?
To whom is the guarantee given?
- How are plans modified?
- Who decides when the plan is complied with and the obligations end?

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How Do We Achieve a Level Playing Field? [1]

- **Industry** - Development of much clearer criteria and benchmarks
- **Countries** - Ministerial – level understanding on basic minimum standards
- **NGOs** - Target this issue and identify those who are unwilling to perform
- **Financial Community** - Explicit guidance from leading institutions – much more specific guidance to accompany Equator Principles
- **Accounting Profession** - Review of current accounting standards

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How Do We Achieve a Level Playing Field? [2]

Multiple Tiers in National Legislation

- Reflect different levels of capacity and different levels of risk to society
- This has been the trend in all systems
- All must participate – but at a level appropriate to their capacity.

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How Do We Achieve a Level Playing Field? [3]

- International corps of experts to work with national government
 - Identify and spread good practice
 - Building capacity in government
 - Building capacity in industry
 - Building stronger education for both mineral specialists and society as a whole

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Challenge Three Integrated Planning for Closure

- What are appropriate goals at closure for maintaining local economic gains?
- What are appropriate social goals?
- What kind of information regime facilitates successful closure?
- What are the processes by which these decisions are made?

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Sustainable Economic Gains and Closure Planning

- Where is the local economy?
- How important is the project to the local economy?
- What kinds of future options are there?
- What is the role of government?
- How can government role be maintained when government revenues fall?
- What kinds of guarantees are there?

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Social Issues and Mine Closure

- Social instability may be the biggest issue in many places -
- What are realistic goals?
- What are the roles of the different actors in achieving those goals?
- Maintaining goals in health and education.

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Information Regime for Integrated Closure Planning

- **The Old Model**: Financial results of operations -- and the probability of premature closure -- are closely guarded secrets.
- **The Consequence**: Since people's future is hostage to forces over which they have no control, the company is responsible for the outcome.
- **The New Trend**: The more informed all economic actors are, the more responsibility they can take for their own futures.

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