Saskatchewan
Environment

Institutional Control Management Framework

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Forward

Mining is Saskatchewan's third largest industry after oil and gas and agriculture. It currently supports direct and indirect employment of 20,000 people, including close to 2,000 residents of northern Saskatchewan. Mining contributes over $2 billion annually to the provincial economy in the form of wages, goods and services.

In 2004 the mineral sector generated $355 million in the form of royalties and taxes, which help support various public services across Saskatchewan. This year, preliminary estimates indicate the mining industry will invest more than $120 million in exploration alone. This is double the amount spent last year, with much of the growth related to increased exploration for uranium and diamonds.

Such resource development carries with it certain obligations, including the protection of the environment and public health and safety. To further address these dual obligations, an initiative has been undertaken to clarify future responsibilities for the long-term management of decommissioned mine/mill properties.

This precedent setting framework is distinctive and reinforces Saskatchewan's leadership role in ensuring environmentally responsible mineral resource development. The proposed framework responds to what we have heard from industry, environmental organizations and Northernersthat a clear, prescribed process is needed to guide the management of decommissioned mine/mill properties.

In looking forward to a sustained strong mineral sector in Saskatchewan, this public information booklet suggests obligations for industry and government that are consistent with the Government of Saskatchewan's objectives of building a greener and more prosperous economy, now and into the future.

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Introduction

Saskatchewan's mining industry continues to grow because of international demand for Saskatchewan's mineral resources. With growth like this, it is important to look into the future and think about how we need to manage mine facilities that have reached the end of their life and have been cleaned up.

Saskatchewan has developed a policy to make sure a constant set of rules are followed to watch over and deal with mine and mill sites after they have finished operating and the site has been restored. The approach and rules we establish are built on what a company already does for the long-term care and control at former mining facilities. This should always be done in a manner that protects the public and the environment. Your views may help form a final policy that shapes a greener and more prosperous Saskatchewan, now and into the future.

This document describes how the Province intends to launch the Framework for long-term care and control of a mine facility that has reached the end of its life and has been cleaned up. At the same time, we want to talk to you about why we think it is important.

Why we are here

Why is the government doing this? Isn't the government looking after this now?

The Province is developing a policy for the long-term care and control of cleaned up and out of service mill sites and mines. It is called the Institutional Control Management Framework. We are at a point where we want to talk to and get input from Northerners, First Nation, Métis, the public, industry and other stakeholders. The Framework includes key features like the Institutional Control Registry. There are important questions concerning how it will work, who and how it should be paid for, and what the Province should ask for before it would take responsibility for a site. Some of these questions are listed along the side of this handout.

What is the public role in all this?

The Province is conducting a series of meetings to find out what you think. This information paper and the full background paper are available on the Saskatchewan Environment website at www.se.gov.sk.ca.

With this formalized process what is different?

Who we are

The Institutional Control Working Group is an interdepartmental committee of the provincial government. The group includes people from a number of provincial departments:

- Northern Affairs
- Industry and Resources
- Environment
- Finance
- Justice
- Executive Council

The group has worked together to build the core of a formal Institutional Control Management Framework. We are now ready to discuss the policy and seek your views about the policy framework.

Where we are today

Saskatchewan has one of Canada's most effective regulatory structures. It covers all parts of mine and mill development-from construction to clean up. The province designed and improved upon environmental regulations--from being nonexistent (the first gold mines of the early 1900's) through the federal-provincial uranium panel reviews of the 1990s, to the present day.

Today, the regulatory process for new mines begins with an Environmental Impact Assessment. Throughout the mine's life, from construction, to operation, to final clean up, mine operations are carefully governed under environmental regulation. Planning for decommissioning (shutting down the operation) and reclamation (clean up) begins at the very early stages of development. It continues throughout the life of the mine or mill site. Once the decommissioning and reclamation plan is approved, the company provides a financial assurance that can provide enough money to complete the plan.

We know with your input, the development of this Framework will secure Saskatchewan's recognition as a leader in:

- Developing world class standards for managing a site
- Ensuring the public has full access to information on cleaned up sites
- Providing certainty to the mining industry and investors of what their obligations are
- Ensuring the protection of human health, safety and the environment for future generations
- Ensuring a fair and clear sharing of the costs involved

This Framework has been developed to deal with all mine sites on Crown land, regardless of what they produced. However, in the case of uranium, mine sites must also meet national and international requirements. The Province is working with the Canadian Nuclear Safety Commission to make sure this framework meets those requirements.

WHAT IS INSTITUTIONAL CONTROL?

"Institutional control" consists of actions, mechanisms and arrangements to keep up or preserve what we know about, and what we put in place to control cleaned up and restored sites after a mine has completed its activity and transferred the site to a responsible authority. The authority that would accept responsibility for a site is the Province. One of the main parts of institutional control is registration of a former mine site, keeping a record of what work was done at the site and permanently holding on to records in a type of registry.

INSTITUTIONAL CONTROL REGISTRY

The Province can keep track of a site by making a formal Registry that will house all the information on each site. This Registry would allow the public access to hard copy and/or electronic copies of documents including:

Who will be responsible for maintaining the Institutional Control Registry?

- Land location of the site
- Former operator of the site
- Description of the site and historical activity
- The Release from Decommissioning and Reclamation
- Final Surface Lease Agreement
- Long term care and maintenance requirements, if required
- In the case of uranium facilities, reference to and location of Canadian Nuclear Safety Commission licensing documentation and decisions relating to the site
- Future allowable land uses for the property
- Frequency and type of inspections that are necessary for institutional control of the site
- The results of past inspections of the site

TRANSFERRING A SITE TO THE REGISTRY

Which sites are to be included in this 'Institutional Control' management framework?

After a company has completed the clean up required at the site, the site enters a period of monitoring to show that it is environmentally stable. During this monitoring phase the company is required to:

- Continue monitoring and maintaining the site as required by the formal clean up and restoration plan
- Maintain sufficient financial assurances to cover the costs of all remaining obligations

Decommissioning and reclamation plans and activities are those actions required to clean up mine facilities and return the land to an acceptable condition, i.e. "clean up". If a site has been cleaned up according to the company's decommissioning and reclamation plan and shown that it is environmentally stable during a period of monitoring, only then can a company apply to Saskatchewan Environment for a Release from Decommissioning and Reclamation. Upon receiving the Application for Release from Decommissioning and Reclamation, the Province will initiate a review. That review will include opportunities for stakeholder input on additional conditions that might apply before the Release from Decommissioning and Reclamation is issued and the type or nature of institutional controls that will apply to the site.

What requirements should be used in making the determination to approve or reject an Application for Release from Decommissioning and Reclamation?

Only after the company has proven that these steps have been completed to the Province's satisfaction would we consider issuing a release. That release is one of the necessary requirements for the responsibility of the site to be transferred from the company to the Institutional Controls Registry administered by the Province. Should Saskatchewan Environment judge that the risk to the Province of maintaining a site is too high, the department retains the authority and ability to refuse to issue a release.

MONITORING A SITE

Once a company has received a Release from Decommissioning and Reclamation and the site has been included in the Registry, does that mean the company is released from all further obligations?

The Registry information would identify a schedule for inspections at each site that it has included within its records. For example, a site may only require a physical inspection like soil, surface and ground water samples every five years to confirm that it remains stable. Inspection reports would be reviewed and approved by Saskatchewan Environment and then entered into the permanent record.

MAINTAINING A SITE

The cost to maintain a property that the Province has accepted responsibility for is predictable and can be estimated for each specific site. For example, the concrete bulkhead used to permanently seal a mineshaft must be designed and constructed to last 100 years. The cost of maintaining that bulkhead is estimated as the replacement cost in 100 years time. The cost estimate would be part of the Application for Release from Decommissioning and Reclamation provided by the company.

Based on a review of that application, the Province may charge a 'release payment' to the company or withhold a portion of the existing financial assurance to cover all the predicable maintenance costs. Implementation of passive decommissioning and reclamation methods to close a site will reduce the amount of work required at a site in the future and therefore reduce the amount of a "release payment".

FUNDING THE REGISTRY

Administration Costs

Who funds the work and the Registry?

The annual operational costs for the Registry would include:

- Staffing the Registry
- Costs to enter each new property into the Registry information
- Maintaining the electronic access to the Registry information
- Housing the information documents for each of the properties
- Reviewing each property and retaining the required inspections/monitoring reports

How will the Registry and the funds be protected and accountable?

Unanticipated Future Costs

Modern mine decommissioning and reclamation plans are based on the use of passive control methods whenever possible. These methods significantly reduce the chance for unanticipated costs to arise. It is not possible to accurately forecast or estimate the full extent of all possible future costs at any individual site.

The table below provides a summary of the most significant unanticipated events that could happen at a cleaned up site in the near or distant future. The Environmental Management and Protection Act, 2002 provides for absolute liability for a person responsible for a discharge to continue indefinitely. This liability is sometimes called the "polluter pays" principle. The Act makes no provision for the waiver of this liability. Because of this, the Transfer and Release would not include a statement releasing the company completely from responsibility for environmental contamination at a particular site.

Potential Unanticipated Future Cost Associated With Institutional Control Registry Properties

Unanticipated Future Costs			
Event	***Likelihood of Occurrence***	***Environmental Risk***	***Public Safety Risk***
Failure of containment dyke	*Low – engineered structures*	*Limited localized risk*	*Limited localized risk*
Degradation of pit wall stability	*Moderate – erosion*	*No risk to environment*	*Limited localized risk*
Failure of shaft closure	*Low – engineered structures*	*No risk to environment*	*Limited localized risk*
Increased release of contaminants from tailings area	*Low – engineered structures & will develop over long time period*	*Limited localized risk*	*Limited localized risk*
Human Intrusion (Vandalism, Accidental, Terrorism)	*Low – remote location, limited resource value*	*Limited localized risk*	*Limited localized risk*
Change in Federal Regulatory Regime (uranium only)	*Unknown – potential financial implications*	*No risk*	*No risk*
Catastrophic Events ('Acts of God')			
Event	***Likelihood of Occurrence***	***Significance of Risk***	
Earthquake	*Extremely Low*	*Inconsequential risk in light of event*	
Flood	*Extremely Low*	*Inconsequential risk due to dilution*	
Meteorite	*Extremely Low*	*Inconsequential risk in light of event*	

Should the framework apply to the abandoned/orphaned mine sites?

This framework will not limit the Province's ability to hold a company responsible for any and all future clean up should the environmental conditions at a site fall below those specified in the Application for Release from Decommissioning and Reclamation approved by Saskatchewan Environment, and upon which the Province took custody. Therefore, if the original company is still in existence, they will be responsible for all costs required to ensure the site performs to the standards set out in the Release.

There are a number of options available to address the issue of who pays for unanticipated future costs, including charging companies a contingency fee in addition to their release payment to reduce the risks to the government of having to manage these costs with public funds. By applying the current environmental standards to a site clean up before it is transferred into the Registry we can reduce the likelihood of this kind of event, the level of risk should this kind of an event happen and the cost to future generations. In addition, the Institutional Control Framework and the monitoring required are designed to provide early detection of any such events in order to minimize the cost of the rehabilitation.

Site clean up related to catastrophic events caused by acts of God and/or natural phenomena of an exceptional, inevitable and unavoidable character would be the responsibility of the Province.

There are a number of options available as to who could provide funding for the launch and operation of the Registry, including industry and the federal and provincial governments. There are also a number of options regarding how funding could be managed and used for the long-term maintenance and management of cleaned up sites. It is important the funding and the management of these funds are permanent, transparent and accountable. We would be open to your suggestions.