Cameco Corporation
Beaverlodge

BVL-FLM

Facility Licensing Manual

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1.0 INTRODUCTION

1.1 Purpose

The Beaverlodge Facility Licensing Manual (FLM) serves as a top-level document and is part of the licensing basis for the decommissioned properties. The FLM sets out the principles that will be followed under the licence by providing direction to the supporting licensing documents, programs and other supporting information necessary to ensure the activities of the licence are carried out in compliance with the licensing basis.

1.2 Scope

The FLM has been prepared to provide information in support of the licensing requirements of:

- *Nuclear Safety and Control Act* (NSCA)
- *General Nuclear Safety and Control Regulations* (GNSCR)
- *Uranium Mines and Mill Regulations* (UMMR)
- *Nuclear Substances and Radiation Devices Regulation* (NSRDR)
- *Radiation Protection Regulations* (RPR)
- *Packaging and Transport of Nuclear Substances Regulations, 2015* (PTNSR)
- *Canada/International Atomic Energy Agency (IAEA) Safeguards Agreement*

This manual deals with health and safety, security and protection of the environment. It contains an overview of the:

- Decommissioned properties and activities to be authorized by the licence.
- Policies, responsibilities, and managed processes that Cameco Corporation (Cameco) has committed to in order to meet the requirements of the NSCA, regulations and licence conditions.
- Organization and staffing in place to meet these responsibilities.
- Programs for the protection of the environment, the health and safety of persons and the maintenance of national security and measures required to implement international obligations to which Canada has agreed.

1.3 Responsibilities

The lead, reclamation specialist, Beaverlodge is responsible for ensuring that the policy and program commitments referenced in this manual are implemented.

1.4 Document Control

The FLM is managed as a controlled document in accordance with the Beaverlodge *Quality Management Program* (BVL-QMP), which ensures that users of this document

are using the most current version and that obsolete versions of this document are removed from service. At a minimum, this document will be reviewed every 10 years.

2.0 BACKGROUND

2.1 Facility and Business Address

The decommissioned Beaverlodge properties are located in northern Saskatchewan, approximately eight kilometres east of the Northern Settlement of Uranium City and approximately 840 kilometres north of Saskatoon (Figure 1.1). Uranium City is the only community with year-round road access to the decommissioned Beaverlodge properties. External access to Uranium City is primarily via aircraft, although an ice road in the winter is established and maintained by the provincial Department of Highways. Ice conditions permitting, the road is typically open for a period of two to five weeks in February and March.

Figure 1.1 – Beaverlodge

Canada Eldor Inc. (CEI) retains responsibility for all costs associated with managing the decommissioned Beaverlodge properties, while Cameco is responsibility for carrying out the necessary monitoring and maintenance of the decommissioned properties. Therefore, Cameco is the licensee for the decommissioned Beaverlodge properties and the business address is provided below. During the licence period, the CNSC will be notified of changes of ownership or business address.

Cameco Corporation
2121 - 11th Street West
Saskatoon, Saskatchewan S7M 1J3

2.2 Summary of Licensed Activities

The goal of managing the decommissioned Beaverlodge properties is ensuring human health and ecological risk are managed to acceptable levels to facilitate transferring the sites to the Province of Saskatchewan's Institutional Control Program (IC Program) for long-term environmental stewardship. Further, as described in the CNSC Licence Conditions Handbook (LCH), the authorized activities at the decommissioned Beaverlodge properties include:

- Maintenance activities associated with the decommissioned facilities.
- Environmental monitoring.
- Implementation of the remedial options identified in the Path Forward Report.

2.3 Facility History

Uranium bearing minerals were first discovered in the Beaverlodge area of northern Saskatchewan in 1934. Since there was little demand for uranium at that time, further prospecting and development in the area was delayed until 1944 when Eldorado Mining and Refining Ltd., a Crown corporation owned by the Government of Canada, commenced detailed exploration in the area. Between 1944 and 1948 Eldorado explored the area around Beaverlodge Lake, leading to start-up of a mine and mill in 1952.

The primary focus of mining activity was in an area north and east of Beaverlodge Lake where the Fay, Ace and Verna shafts were sunk. Production from these areas continued until 1982. Over the entire 30-year production period, the majority of the ore used to feed the mill came from this mine complex. However, several additional satellite mines, primarily in the Ace Creek watershed (which flows into Beaverlodge Lake) were also developed and operated for shorter periods of time. Specifically, several underground satellite mines were developed, the most significant being the Hab and Dubyna developments in addition to several small open-pit mines.

The Beaverlodge surface lease, negotiated with the province of Saskatchewan in 2006, consisted of 70 separate properties. All are located within the Beaverlodge Lake

watershed. The properties cover an area of approximately 744 hectares or 1,838 acres and can be divided into three broad categories, including the Main Facilities Area (276 hectares), the Tailings Management Area (300 hectares) and the Satellite Mines (168 hectares).

Refer to the *Property Description Manual* (BVL-FLM.A) for property boundaries and specific property descriptions.

The Beaverlodge mill was the only carbonate leach uranium mill in Canada and produced approximately 20 million kilograms of yellowcake from just over 10 million tonnes of ore milled. The average recovery rate was approximately 90%. Although it was a carbonate leach mill, a small acid circuit was added to extract the uranium from the limited amounts of sulphide mineralization present in the ore.

It was not until the mid-1970s, over 20 years after operations began, that a federal Atomic Energy Control Board (AECB) licence was issued (1977). Provincial requirements have been maintained through negotiated surface lease agreements.

Mill tailings were placed underground or in surface tailings management areas (TMA's). Tailings were separated by grain-size with the coarse fraction (approximately 40%) being disposed of underground in mined out areas. The remaining fines fraction (approximately 60%) was discharged into the surface TMA, located within the Fulton Creek watershed. The TMA converted three small lakes to receive tailings from the operations, a typical practice for mining operations of that era. These were Minewater, Marie, and Fookes reservoirs. In 1976 water treatment provisions were added to remove radium-226 from both the decant-water from the TMA area and from mine water pumped from the Fay shaft.

On December 3, 1981, Eldorado Resources Limited (formerly Eldorado Mining and Refining Ltd.) announced that operations at Beaverlodge would be shut down. Subsequently mining operations ceased on June 25, 1982 and the mill discontinued processing ores in mid-August 1982. The AECB issued a decommissioning approval in November 1983, after which Eldorado initiated site decommissioning. To meet the accepted objectives of the regulatory approved decommissioning plan (i.e., safe, and stable condition, with activities based on good engineering practice of the day), buildings and structures were removed or dismantled, and all mine openings were sealed. Eldorado left the decommissioned Beaverlodge properties in a safe and secure condition with the expectation that environmental conditions on and downstream of the properties would naturally recover over an extended period. The decommissioning and reclamation work was completed in 1985 and a transition phase monitoring period was initiated to verify decommissioning predictions.

In 1988 the Government of Canada and the Province of Saskatchewan announced their intention to establish an integrated uranium company as the initial step in privatizing their respective uranium investments. Cameco was created from the merger of the assets of the Saskatchewan Mining Development Corporation and Eldorado. Under the terms of the agreement, CEI retained responsibility for all costs associated with managing the decommissioned Beaverlodge properties while Cameco is responsibility for carrying out the necessary monitoring and maintenance of the decommissioned properties. CEI is a subsidiary of the Canada Development and Investment Corporation and is therefore an agency of the Government of Canada.

2.4 Site Activities

In 2009, Cameco with the involvement of the regulatory agencies, developed the Beaverlodge Management Framework (Cameco 2009). The intent of the framework was to provide a clear scope and objectives for the management of the decommissioned Beaverlodge properties along with a systematic process for assessing site-specific risks to allow decisions to be made regarding the transfer of decommissioned Beaverlodge properties to the IC Program. All activities completed on the properties should be linked to the framework with the objective of addressing residual risk, so the properties can be transferred to the IC program. The framework has been reviewed by public stakeholders, including the Northern Saskatchewan Environmental Quality Committee (NSEQC), as well as residents and leaders of the Uranium City community.

The framework provides context with respect to the long-term goals and spatial boundaries for the management of the decommissioned Beaverlodge properties. The management philosophy states:

> *Recognizing historical impacts exist in the Beaverlodge Lake area; manage the former Eldorado – Beaverlodge properties consistent with Cameco's environment policy and regulatory requirements, while managing risks to meet the ALARA principle (As Low As Reasonably Achievable, taking social and economic factors into account). Given this context, management will be focused on the current licensed properties and specified, adjacent unlicensed areas (Greer Lake, Ace Bay and Fulton Bay of Beaverlodge Lake). The justification for entry into the Province of Saskatchewan Institutional Control program will be based upon a clear and transparent process with evidence demonstrating that the licensed properties are stable, and/or continually improving, and residual risks are managed to levels proportional to the risks.*

As part of the Beaverlodge Management Framework (Cameco 2009), a process flowchart was developed that describes the how the residual risks on the decommissioned Beaverlodge properties are systematically assessed, with risk appropriately addressed, prior to advancing them into the IC Program, for long-term monitoring.

Following the development of the framework, Cameco began collecting information, through numerous targeted studies and review of historical information, to develop the Beaverlodge Quantitative Site Model (QSM) (SENES 2012). This model was a predictive tool that was used to assess the expected benefit of implementing potential remedial options as well as predicting the rate of natural recovery for the system, with the ability to assess potential ecological and human health risk. A Path Forward Report was prepared that identified specific remedial activities selected to improve local environmental conditions. As part of the Path Forward, performance objectives and performance indicators were introduced to assess the eligibility of the properties to be considered for released from CNSC licensing and transferred to the IC Program.

The performance objectives for the decommissioned Beaverlodge properties have been defined as safe, secure, and stable/improving.

- Safe – The site is safe for unrestricted public access. This objective is to ensure that the long-term safety is maintained.
- Secure – There must be confidence that long-term risks to public health and safety have been assessed by qualified person and are acceptable.
- Stable/Improving – Environmental conditions (e.g., water quality) on and downstream of the decommissioned properties are stable and continue to naturally recover as predicted.

Performance indicators were established as a measure to determine if a property is meeting the overall performance objectives. The applicable indicators vary depending on the nature of the property, but generally include ensuring that risks associated with residual gamma radiation and crown pillars are acceptable, mine openings to surface are secure, boreholes are sealed, and the site is free from historical mining debris.

The stable/improving objective is also related to the performance indicators discussed in the previous paragraph; however, it is more relevant to monitoring water quality. To verify that conditions on and downstream of the properties are stable/improving, Cameco will continue to monitor the progress of natural recovery and the expected localized improvements from the additional remedial measures implemented at the properties until they are transferred to the IC Program. Additional details on the performance objectives and indicators are provided in the BVL-QMP.

2.5 Future Outlook

Cameco will continue to conduct activities on the decommissioned Beaverlodge properties in accordance with the licensing basis. Cameco's objective in managing the decommissioned Beaverlodge properties is to continue to protect the health and safety of the public and environment and to meet the requirements for transfer of the licensed properties to the IC program.

3.0 FACILITY COMPONENTS

The *Property Description Manual* (BVL-FLM.A) provides a physical description of each licensed decommissioned Beaverlodge property, including the property boundaries and relevant site history.

4.0 POLICIES AND PRINCIPLES

4.1 Cameco's Values and Policy Statements

This information is intended to provide an understanding of the strategic direction Cameco is pursuing, and the approach Cameco personnel managing the decommissioned Beaverlodge properties take in this regard with respect to safety, health, environment and quality.

Decisions and actions required for the effective management of Beaverlodge are guided by Cameco's core values:

Safety and Environment
The safety of people and protection of the environment are the foundations of our work. All of us share in the responsibility of continually improving the safety of our workplace and the quality of our environment.

People
We value the contribution of every employee, and we treat people fairly by demonstrating our respect for individual dignity, creativity and cultural diversity. By being open and honest, we achieve the strong relationships we seek.

Integrity
Through personal and professional integrity, we lead by example, earn trust, honour our commitments and conduct our business ethically.

Excellence
We pursue excellence in all that we do. Through leadership, collaboration and innovation, we strive to achieve our full potential and inspire others to reach theirs.

4.1.1 Safety, Health, Environment and Quality Policy

Cameco has established a corporate policy regarding the environment, worker health and safety and quality. This policy is posted on Cameco's website (www.cameco.com). The policy statement, policy implementation and policy accountability text are reproduced in the following three subsections.

4.2 Safety Culture

The governance and organizational structure and management programs are designed to support the ongoing growth of a strong safety culture through promoting and reinforcing

a collective commitment to safety. Underpinning all these formal mechanisms is senior management's commitment to safety as the highest priority and clear communication of this to the workforce.

Cameco has adopted five key messages that form the framework of how we articulate and manage safety. They are:

- Safety is our first priority.
- We are accountable for safety.
- Safety is part of everything we do.
- Safety leadership is critical to Cameco.
- We are a learning organization.

From a safety culture perspective, this provides clear priorities and a realistic framework to deliver improvements. This will help to reinforce the appropriate behaviours needed for a strong safety culture.

5.0 FACILITY MANAGEMENT

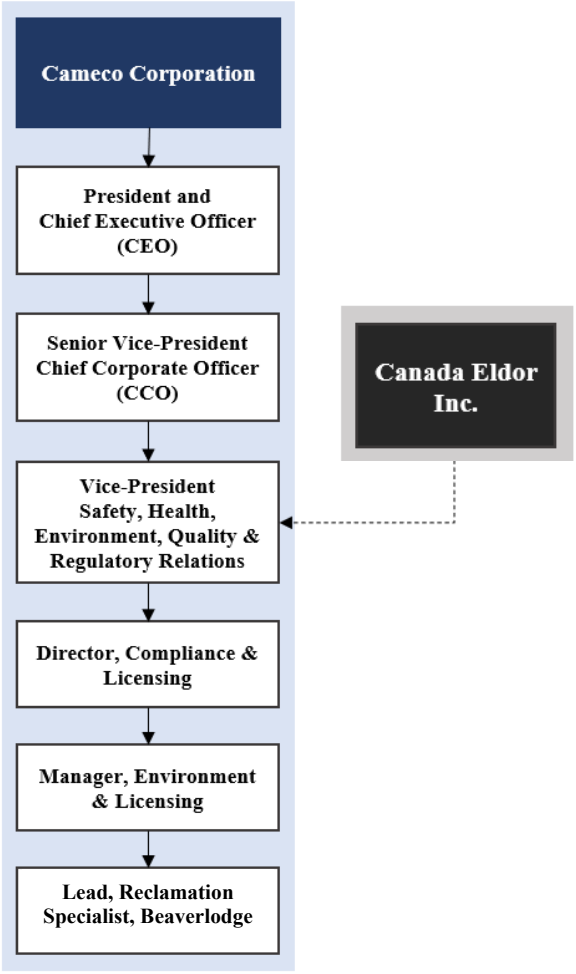
The management of the decommissioned Beaverlodge properties follows the Beaverlodge Management Framework (Cameco 2009) described in Section 2.5.

5.1 Governance

Cameco is a fully integrated resource development company and as such maintains divisional structure to reflect the diversity of operations and services within the organization. The organizational structure regarding the management of the decommissioned Beaverlodge properties is described in Figure 2.1.

Cameco, as the CNSC licensee, is responsible to meet the requirements of the CNSC licence and other regulatory requirements. CEI is not authorized to act on behalf of Cameco in communication with the regulatory agencies. CEI has been identified in the organizational structure (Figure 2.1) as they are financially responsible for all efforts required by Cameco regarding the management of the decommissioned Beaverlodge properties. As such, there is a reporting responsibility from Cameco management to CEI following the hierarchy defined below. Routine interaction with CEI. is typically carried out by the lead, reclamation specialist, Beaverlodge to senior management of CEI.

Figure 2.1 – Beaverlodge Organizational Structure



5.1.1 Organization and Management Roles

The roles and responsibilities of Cameco personnel related to the management of the decommissioned Beaverlodge properties are listed below:

President and Chief Executive Officer (CEO)

Reporting to Cameco's board of directors, the president/CEO is responsible for all executive management of Cameco.

Senior Vice-President and Chief Corporate Officer

Reporting to the CEO, the senior vice-president and chief corporate officer is responsible for executive management of Cameco's safety, health, environment, quality & regulatory relations (SHEQ) group.

Vice-President, SHEQ and Regulatory Relations

The vice-president, SHEQ and regulatory relations is responsible for providing advice in setting strategic direction and culture to improve SHEQ performance at Cameco. The vice-president, SHEQ and regulatory relations, is responsible for the reporting to senior Cameco officials and CEI the status of relevant issues associated with managing the decommissioned Beaverlodge properties.

Director, Compliance and Licensing

The director, compliance & licensing is responsible for translating the corporate SHEQ strategy and vision into divisional plans and priorities for operations such as Beaverlodge and ensuring that Beaverlodge has the appropriate site-level documentation and tools to effectively implement their work plans.

Manager, Environment and Licensing

Responsible for the long-term oversight of the decommissioned Beaverlodge properties and ensuring appropriate resources are in place for managing Cameco's contractual commitments to CEI.

Lead, Reclamation Specialist, Beaverlodge

The lead, reclamation specialist, Beaverlodge is responsible for the overall management of the decommissioned Beaverlodge properties, including preparing the annual budget with CEI and managing the site activities within the Beaverlodge Management Framework (Cameco 2009).

5.2 Quality Management Program

Cameco recognizes that quality management is essential to ensuring activities relating to the management of the decommissioned Beaverlodge properties are carried out safely, efficiently and effectively. The BVL-QMP is the highest-level document in the overall quality management system.

It describes the requirements necessary for each program to be compliant with the 'Plan-Do-Check-Act' (PDCA) approach to management outlined in internationally recognized management standards (including ISO 9001 and ISO 14001). The PDCA approach ensures that processes are systematically identified, controlled and monitored, and that those processes and the quality management system are continually improved.
Key elements of the program include but are not limited to process identification and risk management, communication, information management, procurement, design, contractor management, project management and audit.

5.3 Public Information Program

The process in which Cameco communicates with the public is described in the BVL-PIP. The purpose of this program is to inform identified interested groups about the general nature of the decommissioned Beaverlodge properties and the potential effects of the activities to the safety and health of the public and the environment. It is designed to keep the public informed regarding certain aspects of the properties and foster good relations with northern Saskatchewan communities, regulatory bodies, and the general public.

6.0 SAFETY CONTROL AREAS

As this is a decommissioned site, not all the CNSC's safety and control areas apply to the project. All the safety control areas that apply are listed in the CNCS licence and LCH and are described within this section. The LCH also specifies which regulatory documents (REGDOCs) apply to the decommissioned Beaverlodge properties.

6.1 Management System

The framework which establishes the processes and programs required to ensure safety objectives are achieved, performance against these objectives is continuously monitored and a healthy safety culture is fostered is described in the BVL-QMP as well as sections 2.0, 4.0 and 5.0 above.

6.2 Operating Performance

All activities related to the decommissioned Beaverlodge properties are implemented in accordance with the Beaverlodge Management Framework (Cameco 2009) to ensure the purpose of activities are consistent with the goal of transferring the decommissioned properties to the IC program. Plans, activities and monitoring results are summarized in annual reports and assessed by the Joint Regulatory Group (JRG). As perREGDOC-3.1.2, *Reporting Requirements, Volume I: Non-Power Reactor Class I Nuclear Facilities and Uranium Mines and Mills*, an annual compliance report is submitted to the CNSC each year. Additionally, regulatory inspections are completed annually by the JRG pursuant to the *Nuclear Safety and Control Act* and *The Environmental Management and Protection Act, 2010*.

An overall review of the conduct of the licensed activities and the activities that enable effective performance are discussed in the Path Forward Report, BVL-QMP and the *Beaverlodge Environmental Monitoring Program* (BVL-EMP).

6.3 Safety Analysis

Site-specific risk assessments (e.g., QSM and the 2020 Environmental Risk Assessment), regulatory inspections and community engagement activities are the primary method of identifying potential hazards on the licensed properties. If potential hazards are identified,

they are investigated and if warranted a plan is developed to address specific potential hazards. In addition, the BVL-EMP has been developed as part of the process demonstrating that the licensed properties are stable, and/or continually improving, and residual risks are managed to levels proportional to the risks.

6.4 Physical Design

As described in the BVL-QMP, the design process is planned, documented and controlled. Additionally, the commissioning process ensures that all items that are part of a physical system are commissioned in a safe, logical and comprehensive manner (e.g., stainless steel caps). The *Property Description Manual (*BVL-FLM.A) details applicable structures, systems and components located on the decommissioned Beaverlodge properties.

6.5 Radiation Protection

Cameco has completed a site-wide gamma survey and subsequent risk assessments to demonstrate gamma levels at the site are acceptable based on a reasonable use scenario. Follow up gamma surveys are completed where areas are disturbed during remediation activities to confirm if results are consistent with previous gamma surveys and risk assessments.

Evaluation of the decommissioned Beaverlodge properties through annual inspections and monitoring provide assurances that the health and safety of persons is maintained. Should monitoring, inspections or project specific risk result in the need for more intensive radiation monitoring, Cameco would develop a site or project-specific monitoring program consistent with the corporate level program. Information on a site or project-specific monitoring program would be provided to regulators prior to implementation.

6.6 Conventional Health and Safety

The Beaverlodge properties were fully decommissioned, following a regulatory approved plan, and it is acknowledged that casual access users periodically utilize the properties for recreational or traditional activities. Where applicable, Cameco has installed signs at property boundaries advising of a licensed nuclear facility, as well as placed gates where remediation work may be actively occurring. With minimal safety risks on the properties combined with the remote location and limited population, Cameco feels security of the properties is being managed appropriately.

Ongoing monitoring and maintenance activities conducted on the decommissioned Beaverlodge properties provide an opportunity to identify and address any potential safety issues that arise. Occasionally tasks being performed under the approved licence activities will require non-routine work to be completed, which will undergo job specific hazard assessment (i.e., JHA). These activities are analyzed for safety and health hazards,

considerations and controls. The JHA process for the decommissioned Beaverlodge properties follows the Cameco JHA Standard, where applicable.

6.7 Environmental Protection

The BVL-EMP has been developed in consideration of the Beaverlodge Management Framework (Cameco 2009) and the Path Forward Report, as part of the process demonstrating that the licensed properties are safe, stable and/or continually improving, and residual risks are managed to levels proportional to the risks as evaluated in the QSM and the 2020 Environmental Risk Assessment.

The monitoring described in the BVL-EMP is a continuation of the transition phase monitoring that has been occurring since decommissioning was completed. Throughout the transition phase monitoring period, the BVL-EMP has followed an adaptive management process; evaluating monitoring locations and sample frequency to ensure a robust monitoring program. Changes to the monitoring program have been proposed and accepted throughout the current licence term, and the EMP will continue to evolve to facilitate the transition of decommissioned Beaverlodge properties into the long-term monitoring phase of the IC program. As additional modifications are made to the program, the BVL-EMP will be revised to reflect the changes.

Current core activities within this program include water sampling, geotechnical inspections, radon monitoring, borehole monitoring, compliance with all regulatory requirements and tracking and interpretation of environmental data.

The results of this monitoring follow a quality assurance process to ensure the data are scientifically sound and accurate. Monitoring results are routinely presented to regulatory agencies and are compared to performance indicators, particularly through the annual report but also through the Environmental Performance Report, which is required by the Saskatchewan Ministry of Environment (SkMOE) every five years.

6.8 Emergency Management

The facilities associated with the former Eldorado Beaverlodge Mine and Mill were decommissioned between 1982 and 1985. Therefore, site specific emergency plans are limited to the Wildfire Prevention & Preparedness (WPP) Plan discussed below. Reporting of emergency events/incidents will follow *Nuclear Emergency Preparedness and Response, Volume 2* (REGDOC-2.10.1) and off-site reporting timelines accepted by CNSC staff for Saskatchewan uranium mine and mill sites are described in the January 30, 2020, letter from Cameco to the CNSC (L. Mooney to H. Tadros, e-Doc 6109667). Cameco has prepared a WPP Plan identifying relevant site features (mine openings, powerlines, locked gates) as well as relevant contact information for responsible Cameco employees and local contractors. Also provided in the WPP Plan are the expected work locations and the onsite precautions in place, including firefighting equipment to be available during site activities. This plan is updated annually and submitted to SkMOE.

6.9 Safeguards and Non-Proliferation

The decommissioned Beaverlodge properties are subject to the international safeguards regime under the International Atomic Energy Agency (IAEA), where applicable. Cameco staff provide information and provide IAEA inspectors access to our sites as requested. As outlined in the July 24, 2018 letter from Cameco to the CNSC (L. Mooney to H. Tadros, e-doc 5614635), *Safeguards and Nuclear Material Accountancy* (REGDOC-2.13.1) will be followed, where applicable.

7.0 FINANCIAL ASSURANCE

The financial liabilities associated with the management of the decommissioned Beaverlodge properties are held by the Government of Canada and managed by CEI, a wholly owned subsidiary of the Canada Development Investment Corporation (CDEV). Both CEI and CDEV report to the federal Minister of Finance. The Ministry of Finance has confirmed via letter to the CNSC that:

> *Canada Eldor Inc. is an agent of the Crown in right of Canada for all purposes. It follows that any undischarged obligations and liabilities of Canada Eldor Inc. are the obligations and liabilities of the Crown in right of Canada. That will include Canada Eldor Inc.'s obligations and liabilities to decommission the Beaverlodge Site and the expenses associated with possession, management and control of nuclear substances at that site.*

The CNSC has acknowledged receipt of the letter and accepted that the information fulfilled the requirements of condition 2.2 of Waste Facility Operating Licence WFOL-W5-2120.1/2023.

Once released from CNSC licensing and accepted into the IC program, provincial legislation including *The Reclaimed Industrial Sites Act* and *The Reclaimed Industrial Sites Regulations* require provision of a fund sufficient to pay for the long-term monitoring and maintenance of the site. In addition, depending on whether any engineered structures or tailings remain on the site, an additional contribution of between 10 - 20% of the monitoring and maintenance amount is made to an Unforeseen Events Fund. The IC program also requires that a financial assurance in the amount of the maximum potential failure event be carried until such time as the Unforeseen Events Fund builds to a level that the Province of Saskatchewan is comfortable that there is sufficient money in the fund to cover any future unforeseen event.

As properties are transferred to the IC program, CEI will provide the required funds to the Province of Saskatchewan to meet the Monitoring and Maintenance requirements as well as the Unforeseen Events Fund. As the obligations and liabilities associated with this site have been accepted by the Crown, there is no need to maintain a financial assurance for the maximum potential failure event for these properties.

8.0 INSTITUTIONAL CONTROL PROGRAM

8.1 IC Program Overview

In 2005, Saskatchewan initiated development of an institutional control framework for the long-term management of decommissioned mine and mill sites on provincial Crown land. The framework outlines a formal regulatory process for the long-term site management once all activities are complete and responsibility for the sites have been returned to the provincial Crown. The Beaverlodge surface lease was renewed in 2006 (effective December 24, 2006) – in part to align the lease to this new initiative.

In 2007, the province promulgated *The Reclaimed Industrial Sites Act* and *The Reclaimed Industrial Sites Regulations* establishing the IC program. The process builds on the transitional phase monitoring concept. If the site performs in accordance with the decommissioning and reclamation plan and achieves the predicted stability during the transition phase monitoring period, the operator may make an Application for a Release from Decommissioning and Reclamation to the Ministry of the Environment, followed by an application to the Ministry of Energy and Resources to transfer the property into the IC program. For properties licensed by the CNSC, a release from CNSC licensing is also required. The IC program thus forms an integral part of the province's response to industry's need for clarity on decommissioning requirements.

The primary objectives of the IC program are to:

- Protect human health and safety.
- Protect the environment.
- Ensure future generations are not burdened with the costs of long-term monitoring and maintenance for current mining development.
- Be sustainable.
- Recognize federal jurisdiction, regulatory roles and responsibilities for national and international obligations (including the jurisdictional authority of the federal *Nuclear Safety and Control Act* as enforced by the CNSC).

The IC program does not manage the responsibility for the decommissioning and reclamation process. The responsibility remains with the mine developer. The property must be fully decommissioned and reclaimed before the province will approve custodial transfer into the IC program.

8.2 Transferring Properties

The goal of the Beaverlodge Management Framework (Cameco 2009) is to return properties to the Province of Saskatchewan's IC Program once it has been demonstrated that residual risks are acceptable, and the properties are safe, secure and stable/improving.

Cameco and the Province of Saskatchewan finalized the provincial surface lease for the decommissioned Beaverlodge properties in December 2006. A clause within the surface lease agreement allows for the removal of specific properties without renegotiating the entire agreement, provided that:

- Cameco is able to secure a release from decommissioning and reclamation from SkMOE.
- The CNSC is satisfied the areas have been adequately remediated.
- The Saskatchewan Ministry of Energy and Resources is willing to transfer the properties into the provincial IC program.

The Province of Saskatchewan has stipulated that it will not maintain a licence with the CNSC once properties are transferred to the IC program. As outlined in the RISA Discussion Paper (SkMER 2018), *Institutional Control Registry*, in conjunction with the monitoring prescribed by the *Registry*, has been designed to be comparable to an active "licence" issued by the CNSC. The *Registry* has also been designed to meet Canada's obligations under the International Atomic Energy Agencies (IAEA) Convention. The CNSC will determine the licence requirements on a site-by-site basis. If a site/site holder does not receive consent for exemption from the CNSC, the site will not be accepted into the IC program and *Registry*.

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