# Record of Proceedings, Including Reasons for Decision

In the Matter of

Applicant Cameco Corporation

Subject Application to amend the Cigar Lake Project

**Uranium Mine Construction Licence** 

Date of November 1, 2007 hearing

## **RECORD OF PROCEEDINGS**

Applicant: Cameco Corporation

Address/Location: 2121 – 11<sup>th</sup> Street West, Saskatoon, Saskatchewan

Purpose: Application to amend the Cigar Lake Project Uranium Mine

Construction Licence

Application received: July 31, 2007

Date of hearing: November 1, 2007

Location: Canadian Nuclear Safety Commission (CNSC) Public Hearing Room,

280 Slater St., 14th. Floor, Ottawa, Ontario

Members present: L.J. Keen, Chair A.R. Graham

C.R. Barnes M. J. McDill

A. Harvey

General Counsel: S. Maislin Dickson

Secretary: M. Leblanc Recording Secretary: S. Dimitrijevic

Applicant Represented By		Document Number	
• T. Gitzel, Senior Vi	ce-President and Chief Operating Officer		
B. Steane, Vice-President of Major Products Division		CMD 07-H21.1 CMD 07-H21.1A	
• J. Takala, Director, Safety, Health, Environment and Quality			
Systems (SHEQ)			
• J. Jarrell, Vice-President, SHEQ			
R. Forbes, Mine Manager, Cigar Lake			
• J. Hatley, Senior Geotechnical Engineer			
• J. Alonso, Director of Compliance and Licensing for the			
Mining Division			
CNSC staff		<b>Document Number</b>	
B. Howden	• A. Bouchard	CMD 07-H21	
• M. Langdon	• K. Scissons	CMD 07-H21.A	
Intervenors		<b>Document Number</b>	
See appendix A			
Others			
Saskatchewan Environment, represented by T. Moulding			
Saskatchewan Labour, represented by G. Alderman			
• Itasca Consulting Canada, represented by R. Brummer			

**Licence:** Amended

**Date of Release of the Decision:** December 3, 2007

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#### Introduction

- 1. Cameco Corporation (Cameco) has applied to the Canadian Nuclear Safety Commission<sup>1</sup> (CNSC) for an amendment to the Cigar Lake Project Uranium Mine Construction Licence UMCL-MINE-CIGAR.00/2007, which expires on December 31, 2007. The Cigar Lake mine site is located at the south end of Waterbury Lake, inside the eastern margin of the Athabasca Basin region of northern Saskatchewan.
- 2. Cameco had estimated that the project construction phase would take two to three years to complete. However, after two water inflow events resulting in full flooding of the mine, the underground project construction has been postponed until the completion of remediation activities.
- 3. Cameco originally requested an amendment to extend the licence period for an indeterminate period to allow the implementation of all the necessary Cigar Lake Project corrective actions arising from the mine inflow events and to continue with ongoing remediation efforts and mine construction. However, as the information available to assess the overall remediation and construction completion phase was insufficient at the time of the request, Cameco has modified its amendment application to seek authorization to complete the necessary remediation activities that would bring the site to the condition the mine was in prior to the October 2006 inflow events. Cameco did not request a specific licence period. The resumption and completion of the remaining underground development would subsequently be the subject of another licensing application by Cameco, when appropriate.
- 4. Cameco has also applied to amend the licence conditions regarding effluent treatment and release to allow full use of the mine water treatment facility.

#### Issues

- 5. In considering the application, the Commission was required to decide, pursuant to subsection 24(4) of the Nuclear Safety and Control Act<sup>2</sup> (NSCA):
  - a) if Cameco is qualified to carry on the activity that the amended licence would authorize; and
  - b) if, in carrying on that activity, Cameco would make adequate provision 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.

<sup>2</sup> S.C. 1997, c. 9.

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<sup>&</sup>lt;sup>1</sup> The *Canadian Nuclear Safety Commission* is referred to as the "CNSC" when referring to the organization and its staff in general, and as the "Commission" when referring to the tribunal component.

#### **Public Hearing**

6. The Commission, in making its decision, considered information presented for a public hearing held on November 1, 2007 in Ottawa, Ontario. The public hearing was conducted in accordance with the *Canadian Nuclear Safety Commission Rules of Procedure*<sup>3</sup>. During the public hearing, the Commission received written submissions and heard oral presentations from CNSC staff (CMD 07-H21, CMD 07-H21.A) and Cameco (CMD 07-H21.1, CMD 07-H21.1A). The Commission also considered submissions from 3 intervenors (see Appendix A for a detailed list of interventions).

#### **Decision**

7. Based on its consideration of the matter, as described in more detail in the following sections of this *Record of Proceedings*, the Commission concludes that Cameco is qualified to carry on the activity that the amended licence will authorize. The Commission is of the opinion that Cameco, in carrying on that activity, will make adequate provision 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. Therefore,

the Commission, pursuant to section 24 of the *Nuclear Safety and Control Act*, amends the Uranium Mine Construction Licence UMCL-MINE-CIGAR.00/2007, for Cameco Corporation's Cigar Lake Project, located in the Athabasca Basin region of northern Saskatchewan. The amended licence will be valid from January 1, 2008 to December 31, 2009 and will authorize limited remediation activities.

8. The amended licence will authorize Cameco to carry out the activities listed in Phase 1 of its remediation plan, which includes the completion of any preparatory surface work to support the activities of Phases 2 and 3. The Commission includes in the licence the conditions recommended by CNSC staff, as set out in the draft licence attached to CMD 07-H21.A with the following modifications:

Item IV), paragraph c) on Licensed Activities, shall be modified as follows:

"This licence authorizes the licensee to:

c) remediate and construct facilities within Remediation Phase 1, as described within the supporting documents listed in Appendix B to this licence;"

Item 1.4, as proposed in Section V) Conditions, subsection 1. General, shall be modified as follows:

<sup>&</sup>lt;sup>3</sup> S.O.R./2000-211.

"1.4 The licensee shall maintain a financial guarantee for decommissioning acceptable to the Commission;" and

Item 1.5, as proposed in Section V) Conditions, subsection 1. General, shall be removed as it only pertains to activities beyond the scope of the activities authorized in the amended licence.

## **Issues and Commission Findings**

9. In making its decision, the Commission considered a number of issues related to Cameco's qualification to carry out the proposed activities and the adequacy of the proposed measures for protecting the environment, the health and safety of persons, national security and international obligations to which Canada has agreed. The Commission's findings, based on consideration of all of the information and submissions available on the record for the hearing, are summarized below.

## **Proposed Activities for Mine Remediation**

- 10. Cameco informed the Commission on the status of the Cigar Lake Project following the water inflow events that flooded the mine. Cameco stated that it has adopted a phased approach to the corrective actions to be taken and has developed a remediation plan and an approval and review process. With respect to mine remediation, Cameco identified 91 remediation activities spread over 57 corrective actions.
- 11. Cameco described the corrective actions that have been integrated to form a fivephased remediation program as follows:
  - Phase 1 includes activities for securing the inflow area, establishing of dewatering wells from surface, completing large diameter opening assessment, and preliminary assessment of plug integrity;
  - Phase 2 includes validation of the inflow area plug integrity, initiation of mine dewatering and initiation of re-entry for rehabilitation of the shaft and initial inspection of the mine;
  - Phase 3 includes installation of engineered bulkhead at the inflow area and remedial activities required to secure the mine;
  - Phase 4 includes rehabilitation of the mine to its pre-inflow status, reestablishment of a full-capacity ventilation system and upgrading of the pumping system; and
  - Phase 5 includes a resumption of underground development and construction activities, and as such, would be the subject of a construction licence application.

- 12. Cameco stated that the project is currently focused on completing Phase 1 of the remediation plan. In addition, Cameco site staff continues to operate the ancillary facilities necessary to support the ongoing activities.
- 13. Cameco expressed its expectation that the requested amendment to the licence term would allow the completion of remediation activities, including the Phase 4 activities. Cameco pointed out that the re-evaluation of the mine development plan, triggered by the inflow investigation process, has not been completed. Consequently, the available information on construction and development phases is also incomplete at this time. As a consequence, determining a firm time-line for the foreseen activities has proved difficult. Thus, Cameco has submitted a request to the Commission for an activity-based licence for all phases of remediation and subsequent development and construction of the mine.
- 14. CNSC staff presented its assessment of the status of the Cigar Lake project and the remediation Phase 1 activities underway. CNSC staff stated that the mine remains under a safe shut-down state and there is no underground mining activity at the Cigar Lake site. CNSC staff added that it continues to monitor the licensee's progress and communicate the CNSC regulatory expectations to the licensee.
- 15. CNSC staff stated that, in its opinion, Cameco is qualified to carry out the Phase 1 activities and has adequate measures in place to protect the health, safety, security and environment. CNSC staff added that it is regularly on site to confirm that the Phase 1 activities are being carried out safely.
- 16. CNSC staff recommended to the Commission, in its supplementary submission (CMD 07-H21.A), a reduced scope of licensed activities and a modified path forward that would include only Phases 1 through 4 of Cameco's proposed remediation program. Phase 5, which encompasses a resumption of construction and development activities, would require a new construction licence. Also, CNSC staff proposed increased restrictions and regulatory controls, reflected in recommended changes to licence conditions and hold points.
- 17. CNSC staff proposed four regulatory hold points throughout Phases 2 to 4. These hold points are proposed to ensure that the necessary management and safety controls are in place prior to granting the approvals for the relevant phase activities.
- 18. Responding to the Commission's enquiry on the status of the mine remediation, Cameco estimated that Phase 1 was 90% to 95% completed and that the remaining work should be completed by the end of the year.
- 19. CNSC staff stated that Phase 1 consists of remediation activities conducted from the surface and confirmed that the appropriate material, programs and procedures were in place to manage the risks associated with these activities. CNSC staff also concurred with Cameco on the current status of the Phase 1 activities.

- 20. The Commission sought more information on the quality of water in the flooded mine. Cameco responded that water samples from the mine have shown no significant contamination. Saskatchewan Environment confirmed that the quality of water has been within the regulatory limits.
- 21. In response to the Commission's request for assurances that Cameco has a full understanding of the site, the licensee acknowledged that the previous modelling was preliminary in terms of its representation of both hydrogeologic units and geologic structures. Cameco added that its consultant was in the process of developing a new, more detailed model that incorporates new geologic and hydrogeologic data calibrated to the two inflow events. The model would then be used to predict mine-wide seepage for the complete mine and catastrophic inflows under various geotechnical failure mechanisms. The output of these predictions would be used to assist in mine planning and design of water management systems.
- 22. Based on this information, the Commission is of the opinion that Phase 1 activities, including the necessary preparation for the Phase 2 and Phase 3 activities, be completed before a request to carry out the remaining activities can be considered.

#### **Radiation and Environmental Protection**

- 23. CNSC staff stated that, based on the current shutdown state of the flooded mine, the existing Cameco programs are effective in managing the risk to the health and safety of persons and the environment for the low risk activities being conducted.
- 24. Based on the information received, the Commission is of the opinion that, for the proposed limited activities associated with the remediation of the mine, Cameco will make adequate provision for the protection of persons and the environment during the proposed activities.

#### **Performance Assurance**

25. The Commission examined performance assurance and operational performance, particularly the aspects of safety culture, in order to establish the adequacy and effectiveness of Cameco's approach to the proposed corrective actions and remediation activities.

#### Quality Assurance

26. Cameco presented the project documentation that includes the Mining Facility Licensing Manual (MFLM), Mining Facility Description Manual (MFDM), Mining Facility Program Manual (MFPM), and the Preliminary Decommissioning Plan (PDP).

- 27. Cameco also presented to the Commission improvements to its Quality Management System. The original system consisted of twenty programs and one quality management system (QMS) linking document. This linking document will be replaced by the new Quality Management Program (QMP) which is undergoing final revisions and will be described in the MFLM.
- 28. Cameco informed the Commission on its *Corrective Action Plan Implementation Project* (CAPIP) based on the management response commitments related to the 2006 TapRoot corrective action recommendations and the CNSC's requirements.
- 29. The Commission considered the role of internal and external communication in the context of quality assurance. Cameco noted that it promotes a culture of self-reporting and also maintains a confidential hotline accessible to employees who want to put forward information without going through the normal channels of supervision. CNSC staff added that it maintains direct communication with Cameco's employees through regular visits and meetings and encourages employees to discuss any issues, informally or confidentially. CNSC staff further noted that it has and will continue to follow up on these reported issues as needed.

## Organisational Structure

- 30. Cameco reported on the progress it has made to strengthen its governance through a reorganization aimed at improving accountability at both the corporate and site level. Cameco also noted the re-alignment of the overall operations division. The safety, health, environment, radiation and quality areas have been restructured into two parts one focused on safety, health, environment and radiation and the other focused on quality, compliance and licensing. Cameco has appointed a new vice-president for major projects, a new general manager and a new mine manager.
- 31. Cameco further noted that a Quality, Compliance and Licensing department has been created to oversee the implementation of the enhanced management system. Cameco has also redefined the main features of the *Integrated Safety, Health, Environment and Quality Policy* (SHEQ) management. These features encompass demarcation of divisional and corporate structures with the full integration of SHEQ under the operations division, clear distinction between large-project business expansion work and current operations, and establishment of a corporate-level group to set standards and provide expertise and oversight of mine engineering matters. Important features also include the dedication of senior management to oversee Cameco's response to corrective actions arising from the inflow events as well as a new senior executive direction to renew the employees' focus on the company's core business activities. These activities include the pursuit of operational excellence and improvements to risk awareness.

- 32. The Commission expressed its concerns over what appears to be a repeated situation of a new team taking over the management of a project suffering from a serious set-back and stating similar commitments to positive changes in organisational, operational and safety matters as the previous team. The Commission sought further assurance that an effective approach is in place to rebuild confidence in Cameco's ability to carry out the proposed activities. Considering the major geotechnical failures that have caused the inflow events, the Commission emphasized the importance for Cameco to demonstrate it is qualified to carry out the activities that the amended licence would authorize.
- 33. In response, Cameco stated that the company had made the necessary changes and that the newly appointed management team is fully focused on geoscience and geotechnical matters, quality and management systems, risk assessment and safety culture. To document the progress in these areas, Cameco will carry out internal audits and field observations with the direct involvement of management, apply established key performance indicators, and conduct safety culture surveys.

## Safety Culture

- 34. Cameco noted the actions taken to improve safety culture at all levels of the organisation. In this regard, Cameco's President and Chief Executive Officer has communicated to all its employees the importance of safety culture, excellence and high reliability in the pursuit of the corporate values needed to maintain success within the organisation. Cameco further noted that a safety culture assessment is planned for late 2007 or early 2008.
- 35. The Commission recognized the focus of Cameco's management team and its direct involvement in daily operations and technical activities. However, in order to be able to measure the ability and qualification of the applicant to proceed with the project, the Commission sought further information on the overall structure in place for safety culture. The Commission was of the view that, at this stage, there is a lack of evidence of Cameco's longer term structured planning to indicate priorities, sequences of actions, organisational charts and responsibility lines.
- 36. Cameco responded that it has developed the appropriate plans and that this information would be presented to the Commission prior to requesting approval for the next remediation phases.
- 37. The Commission stated its expectations with respect to the establishment of a strong safety culture within the organisation. The Commission expressed its concern that Cameco did not present the needed information in a persuasive manner so to enable the Commission to establish the ability of the company to complete the remediation of the flooded uranium mine. The Commission remains concerned as to Cameco management's ability to communicate to its employees and contractors the commitment to the improvement of safety culture and its importance in the future development of the project.

## Human Performance and Training

- 38. With respect to Cameco's efforts in human performance and training, Cameco stated that it was reviewing and revising the safety and control protocols necessary to support the remediation plan and that it had conducted an audit of the assessment of the site decision-making process. Accordingly, it has developed a training program for all relevant personnel to explain the hazards associated with mining in the Athabasca Basin.
- 39. Cameco further noted that it has adopted a systemic job hazard analysis approach as a means to ensure that the hazards associated with non-routine work are well understood and managed.
- 40. Cameco informed the Commission that a systematic approach to training (SAT) is used in training the personnel involved in activities with SHEQ risks and that the Cigar Lake SAT process follows the corporate program.
- 41. Cameco also stated that it had implemented more formal contractor management standards. Cameco's assessment of the implementation of the standards is complete and follow-up actions to improve the implementation are in progress.

#### Conclusion on Performance Assurance

- 42. Based on the licensee's past performance and the limited information available on the path forward, the Commission is of the opinion that only a cautious, phase-by-phase approach without time-induced imperatives should be considered. The Commission is of the view that this approach would ensure that adequate provisions are made to protect health and safety of the workers and the environment.
- 43. Based on the information presented and on the above consideration, the Commission is of the opinion that Cameco is qualified to carry out the remediation Phase 1 activities, including the preparatory surface work needed to carry out the activities under Phases 2 and 3.

## **Emergency Preparedness and Response**

44. Cameco informed the Commission that it had completed a hazard assessment for the inflow emergency response. It also stated that the test of inflow contingency plans at McArthur River, the experience of which is being shared with Cigar Lake and Rabbit Lake, had been completed.

- 45. Cameco also informed the Commission that, within the activities related to the mine design validation, a risk assessment was underway on the technical viability of the bulkhead doors. The final decision on the potential use of bulkhead doors in emergency procedures will be made based on a physical inspection of the doors following the dewatering of the mine, and the re-evaluation of their engineering design and applicability.
- 46. The Commission sought further information on the pumping capacity and capacity of the ponds to store untreated water. Cameco responded that the current pumping rate is 1000 cubic meters per hour (m³/h) and will be increased to 2300 m³/h. The storage capacity of two existing ponds, considering the maximum foreseen pumping rate, would be sufficient for 80 hours.
- 47. The Commission further enquired on the licensee's preparedness to carry out emergency evacuation of the underground galleries. Cameco responded that the evacuation is triggered by a predetermined water flow in the mine and could last between two and eight hours, depending on whether the existing cage elevator is used or not.
- 48. Taking into account the pumping capacity, the untreated water storage capacity and the estimated time to evacuate workers, the Commission challenged an accident scenario of a repeated flooding of the mine and Cameco's preparedness to react.
- 49. In response, Cameco stated that, for a specific rate of inflow, it would have predetermined evacuation points to ensure the safe, orderly evacuation of the mine. Faced with a potential repetition of a mine flooding of the same scale as the previous one, and taking into consideration the regulatory limit set on the release of untreated water in the environment, Cameco acknowledged that it would allow the mine to be flooded again.
- 50. CNSC staff stated that Cameco's current water release regulatory limit is 550 m<sup>3</sup>/h. Although the installed pumping capacity enables larger output, releases over the regulatory limit would be subject to future regulatory approval. In such a case, a new environmental assessment determination would be done due to the larger loadings and discharge quantities and potential impacts to the receiving environment. CNSC staff expressed the opinion that, in the event of a repeated similar mine flooding event, the flooding of the mine would be an acceptable measure for the protection of the health and safety of persons and the environment, as long as a safe evacuation of workers is provided.
- 51. The Commission remains concerned as to the licensee's strategy for potential repetition of this event. However, based on the information provided, the Commission is of the opinion that emergency preparedness for the Cigar Lake Project is adequate for the activities of Phase 1 of the proposed licence amendment.

## **Preliminary Decommissioning Plan and Financial Guarantee**

- 52. Cameco has reviewed the *Preliminary Decommissioning Plan* (PDP) to assess the scope of the current PDP against the scope of the remediation plan. Cameco submitted the updated plan to CNSC and Saskatchewan Environment. Cameco assumed that about 5% of the remediation material might become a potential decommissioning liability. Thus the proposed revised cost estimate amounts to \$15.8 million. Cameco intends to revise the applicable letters of credit upon acceptance of the proposed PDP update.
- 53. CNSC staff noted that, according to its preliminary assessment, some updating of the costing basis is required to more accurately reflect the current situation. CNSC staff will review the PDP update and intends to report back to the Commission prior to, or at the time of consideration of the activities of Phases 2 and 3. The appropriate financial guarantee should be put in place by January 1, 2008.
- 54. The Commission is of the opinion that the revised PDP and financial guarantee, as proposed, will be adequate. The Commission notes that any changes to Cameco's cost estimate shall be brought forward to the Commission for consideration.

## **Public Information Program**

- 55. Cameco presented its public information program developed for the Cigar Lake Project and other northern Saskatchewan mine sites. The program includes interactions with the Northern Saskatchewan Environment Quality Committees (NSEQC), most notably with the Athabasca Environmental Quality Committee (EQC), and annual visits to the communities. Cameco also carries out consultations and provides general updates on all its northern Saskatchewan mining operations.
- 56. Cameco noted that it submits annual reports to the Northern Mines Monitoring Secretariat, established by the provincial government to ensure dissemination of information on the uranium industry throughout the North. Cameco added that it maintains an office in northern Saskatchewan to ensure that there is a direct communications link with northern communities.
- 57. CNSC staff noted the significant interest expressed by various stakeholders and media on the Cigar Lake Project during the last year. CNSC staff also informed the Commission that numerous presentations were made in various surrounding communities by Cameco, AREVA Resources Canada Incorporated, CNSC, Saskatchewan Environment, Saskatchewan Industry and Resources, and the Northern Mines Monitoring Secretariat.

- 58. The Northern Saskatchewan Environmental Quality Committee (NSEQC), in its intervention, stated that Cameco had maintained communication with northern communities during the flooding events and that it should continue to disseminate information on the rehabilitation of the underground mine. NSEQC also stressed the importance that CNSC and other regulators communicate effectively with the northern people.
- 59. CNSC staff committed to provide the EQCs with the licensee's results on its environmental and radiation protection monitoring programs.
- 60. James V. Penna, in his intervention, questioned the quality and transparency of the consultations since Cameco did not report on the number of people attending their public consultation sessions or the composition of the audience. The intervenor also voiced the concern that the Commission Member Documents (CMDs) were available only upon request to the CNSC Secretariat and questioned the notion of accountability of the licensee.
- 61. With respect to the intervenor's concerns regarding accountability, the Commission stated that, under the NSCA, the licensees are held accountable for the activities they carry out under their respective licences. The CNSC exercises regulatory oversight on these licences and uses the various regulatory tools at its disposal under the NSCA and associated regulations to ensure that the licensees protect the health and safety of persons, the environment and security when carrying out those activities.
- 62. The Commission is satisfied that Cameco continues to inform the public on its activities and is of the opinion that Cameco's public information program is adequate.

## **Cost Recovery**

63. CNSC staff reported to the Commission that the applicant is in good standing with the CNSC's *Cost Recovery Fees Regulations* 2003<sup>4</sup>, with respect to the payments of fees for the Cigar Lake Project.

## Application of the Canadian Environmental Assessment Act

64. Before making a decision, the Commission must be satisfied that all applicable requirements of the *Canadian Environmental Assessment Act*<sup>5</sup> (CEAA) have been fulfilled.

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<sup>&</sup>lt;sup>4</sup> S.O.R./2003-212.

<sup>&</sup>lt;sup>5</sup> S.C. 1992, c. 37.

- 65. The Commission previously reviewed the proposal to construct and operate the Cigar Lake Project under the CEAA and issued its decision on the *Environmental Assessment Screening Report for the Construction and Operation of the Cigar Lake Uranium Mine Project* on June 30, 2004. The Commission concluded that the environmental assessment Screening Report was complete and met all of the applicable requirements of the CEAA.
- 66. James V. Penna and Eleanor Knight, in their interventions, suggested that the existing licence be suspended and that a new environmental assessment be carried out. The new environmental assessment should allow for a comprehensive evaluation of proposed methods and procedures.
- 67. As noted in paragraph 48 of this Record of Proceedings, if there are changes in the project, such as potential request to release in the environment amounts of water above the current regulatory limit, the Commission notes that a new environmental assessment determination will be conducted by the Responsible Authority as required pursuant to CEAA.
- 68. The Commission is satisfied that the requirements of the CEAA have been met for the purpose of this proposed licence amendment.

#### **Licence Length**

- 69. Cameco requested a licence period that would allow the implementation of all the necessary corrective actions arising from the two mine inflow events and the completion of the ongoing remediation activities. Cameco stated in its supplementary submission, CMD 07-H21.1A, that the resumption and completion of the underground development could be subject of a new application at a future date.
- 70. Due to the uncertainty of timelines and activities currently being scoped out and addressed by the licensee, CNSC recommended that the license period be amended to a two-year license period.
- 71. CNSC staff also recommended a restricted scope of activities to include only remediation Phases 1 through 4. Cameco would be required to apply for a new construction licence before returning to the pre-flood construction and development of Phase 5.
- 72. The Commission considered the information submitted and decided to amend the licence term by extending it for a period of two years, during which Cameco would be authorized to complete the remediation Phase 1 and complete the surface preparations for Phases 2 and 3.

73. The Commission also expects that Cameco will have sufficient time during this licence period to complete the more detailed modeling of the mine and have in place the key performance assurance elements with respect to governance and safety culture.

#### Conclusion

- 74. The Commission has considered the information and submissions received from Cameco, CNSC staff and intervenors as presented in the material on the record.
- 75. The Commission is satisfied that Cameco is qualified to carry on the activity that the amended licence will authorize. The Commission is also satisfied that Cameco, in carrying on that activity, will make adequate provision 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.
- 76. The Commission therefore amends, pursuant to section 24 of the NSCA, the Uranium Mine Construction Licence UMCL-MINE-CIGAR.00/2007, for Cameco's Cigar Lake Project, located in Athabasca Basin, northern Saskatchewan. The amended licence is valid until December 31, 2009. The authorized activities during this period are restricted to those described in Phase 1 of Cameco's remediation plan and the associated surface preparatory activities needed to carry out Phases 2 and 3.
- 77. This licence term should enable Cameco to bring to completion the remediation Phase 1 and surface preparations before applying for an amendment to the licence to authorize the activities of Phases 2 to 4.
- 78. The Commission includes in the licence the conditions recommended by CNSC staff, as set out in the draft licence attached to CMD 07-H21.A, with the modifications listed in paragraph 8 of this Record of Proceedings.
- 79. The Commission notes that Cameco will have to demonstrate that it has the qualifications to carry out any other activities of the Cigar Lake Project in a future application. In this regard, the Commission expects that Cameco will provide a more comprehensive application with future licensing requests that will include detailed integrated project management planning and address any outstanding issues with respect to performance assurance.

Linda J. Keen President Canadian Nuclear Safety Commission

Date of release of Decision: December 3, 2007

# Appendix A – Intervenors

Intervenors	Document Number
Northern Saskatchewan Environmental Quality Committee, represented by M. McDonald	CMD 07-H21.2
Eleanor Knight	CMD 07-H21.3
James V. Penna	CMD 07-H21.4