

Record of Proceedings, Including Reasons for Decision

In the Matter of

Applicant Cameco Corporation

Subject Application for a Licence to Operate the
Blind River Nuclear Fuel Facility

Date February 18, 2002

1. Introduction

Cameco Corporation of Saskatoon (Cameco), Saskatchewan, has applied to the Canadian Nuclear Safety Commission (CNSC) for the renewal of its licence to operate a uranium refining facility in the Town of Blind River, Ontario for a period of five years. The facility is currently licensed under operating licence FFOL-3632.1/2002 which expires on February 28, 2002.

The Blind River facility is located on a 275 hectare (636 acre) parcel of land owned by Cameco on the north shore of Lake Huron, approximately 5 km west of the Town of Blind River and two km south of the Mississauga First Nation Band Reserve. The facility, located on an 11.3 hectare (28 acre) secure site within the Cameco property, is used to refine natural uranium concentrates (U_3O_8) into natural uranium trioxide (UO_3). In the refining, a chemical process is used to purify the uranium concentrates and prepare it as a feed material for the production of uranium dioxide and uranium hexafluoride at Cameco's Port Hope Uranium Conversion Facility in the Town of Port Hope, Ontario.

The specific operations carried out at the Blind River facility include:

- ? uranium concentrate (feed) receiving, handling and storage;
- ? feed sampling and preparation;
- ? feed dissolution and refining;
- ? uranium trioxide production;
- ? by-product treatment;
- ? nitric acid recovery;
- ? bulk chemical storage and handling;
- ? water supply and treatment;
- ? waste-water and sewage treatment;
- ? waste management;
- ? gas/oil-fired steam generation;
- ? emergency power generation; and
- ? other plant services and support operations.

2. Decision

The Canadian Nuclear Safety Commission, in making its decision, considered information presented at a public hearing held on November 15, 2001 and January 17, 2002 in Ottawa, Ontario.

Based on its consideration of the matter, as described in more detail in the following sections,

the Commission, pursuant to section 24 of the *Nuclear Safety and Control Act*, issues a Nuclear Fuel Facility Operating Licence to Cameco Corporation, Saskatoon, Saskatchewan, for the Blind River Facility. The licence, FFOL-3632.0/2007, is valid from March 1, 2002 to February 28, 2007, unless suspended, amended, revoked or replaced.

With this decision, the Commission requires that CNSC staff prepare a status report at the mid-point in the five-year licence period. The status report will be presented to the Commission at a future public proceeding of the Commission. The status report will address the overall performance of the licensee and facility with respect to the protection of the health and safety of persons, the environment and the maintenance of national security and measures required to implement international obligations to which Canada has agreed (as outlined in the appendix to CMD 01-H31.A).

The Commission further requests CNSC staff to prepare in one year an information report on the design and implementation of an environmental effects monitoring program at the Blind River Facility. The reasons and requirements for the above-noted reports are discussed further in sections 4.3 and 4.11 of this *Record of Proceedings*.

The Commission includes in the licence the conditions of the previous licence, relabeled using a numeric rather than alpha-numeric system, and the following new conditions recommended by CNSC staff:

- 1.4 The licensee shall submit, by April 30, 2002, a plan and schedule for the implementation of its corporate Quality Assurance Program.
- 1.5 The licensee shall maintain a financial guarantee for decommissioning acceptable to the Commission or a person authorized by the Commission.
- 9.4 (c). The licensee shall submit to the Commission not later than March 15 each year, an annual compliance report that covers the previous calendar year's licensed activities and programs prepared in accordance with Appendix "I" to this licence (Regulatory Document R-27: "Preparation of an Annual Compliance Report for a Uranium Fuel Fabricating Plant").
- 7.1 The licensee shall design, build, modify and otherwise carry out work related to the facility with potential to impact protection from fire in accordance with the National Building Code, 1995 and the National Fire Code, 1995.
- 7.2 The licensee shall operate, maintain, test and inspect the facility in accordance with the National Fire Code, 1995.
- 7.3 The licensee shall, prior to implementation, submit any proposed modification of the facility with potential to impact protection from fire, for third-party review of compliance with Condition no. 7.1 and the standards listed therein. The review shall be carried out by one or more independent external agencies having specific expertise with such reviews and shall be submitted, by the licensee, to the Commission or a person authorized by the Commission.
- 7.4 The licensee shall arrange for annual third-party reviews of compliance with the inspection requirements of the National Fire Code, 1995. The review shall be carried out by one or more independent external agencies having specific

expertise with such reviews and shall be submitted, by the licensee, to the Commission or a person authorized by the Commission.

- 7.5 In the event of any conflict or inconsistency between a nuclear safety requirement and the National Building Code, 1995, or the National Fire Code, 1995, the licensee shall direct the conflict or inconsistency to the Commission or a person authorized by the Commission, for resolution.

Licence conditions 7.1 to 7.5 above are standard conditions now included in all Class I facility licences.

The Commission modifies Appendix "B" of the licence as recommended by CNSC staff to refer to current versions of the referenced documents.

The Commission also modifies Appendix "C" of the licence as recommended by CNSC staff to change the maximum uranium discharge rate for emissions to the atmosphere from 44 Mg/year to 5.2 kg/hr (2 kg/h from the Absorber stack, 2 kg/hr from the Dust Collection Exhaust Vent stack and 1.2 kg/hr from the Incinerator stack based on a weekly average period).

Furthermore, the Commission modifies Appendix "F" of the licence as recommended by CNSC staff to add daily action levels for uranium discharge rates from the individual stacks in addition to the existing weekly action levels.

3. The Public Hearing Process

The public hearing, conducted under the *Nuclear Safety and Control Act* and the *Canadian Nuclear Safety Commission Rules of Procedure*, was held in Ottawa, Ontario over two days; November 15, 2001 and January 17, 2002. The Commission received written submissions and heard oral presentations from CNSC staff (CMD 01-H31 and CMD 01-H31.A) and Cameco Corporation (CMD 01-H31.1 and CMD 01-H31.1A). The Commission also considered written submissions from four (4) intervenors, listed in Appendix A.

4. Issues and Commission Findings

4.1 Radiation Protection

The Commission considered information on the past performance at the Blind River Facility to assess whether the licensee has demonstrated its ability to adequately provide for the protection of workers, the public and the environment from radiation.

CNSC staff reported that Cameco did not exceed the regulatory dose limits for workers at the facility during the current licensing period. CNSC staff expressed the opinion that Cameco's radiation protection program for workers is adequate, that it incorporates appropriate Action

Levels, and that it effectively applies the principles of ALARA (as low as reasonably achievable, social and economic factors taken into account).

CNSC staff explained to the Commission that the significant potential pathways for radiation exposure of workers at the facility are through ingestion, inhalation and absorption and, therefore, internal dosimetry is important for monitoring worker dose. Staff noted that the internal dosimetry program at the facility remains subject to the *Transition Plan* exemptions under the *Nuclear Safety and Control Act* (CMD 00-M19 as amended). Under the *Transition Plan*, Cameco is exempt until the end of March 2003 from the requirement to ascertain the internal component of the effective and equivalent doses received by, or committed to, persons at the facility. The exemption is to allow time for the purchase and installation of new, more sensitive lung-counting equipment that will make this measurement possible. CNSC staff noted that despite the current unavailability of the more sensitive lung counter, the information obtained from the current urinalysis, air and surface contamination monitoring, and the current, less sensitive lung counting equipment, provides reliable evidence that internal radiation exposures to workers are being effectively controlled. CNSC staff further noted that the estimated whole-body and extremity doses average between 1% and 3 % of the regulatory limits.

Cameco noted that to further reduce the potential for internal radiation dose, it has taken a number of steps to control dust in the facility, including improved housekeeping, use of greater automation in ore concentrate drum dumping, and the upgrading of maintenance on sealed equipment.

With respect to the protection of the public from radiation, Cameco estimated that the highest dose to an individual in a theoretical critical group is approximately 0.7% of the public dose limit.

An intervenor (Northwatch) expressed the view that the human health effects were not being adequately assessed and that a comprehensive social impact assessment is needed. Northwatch stated that the study should include a detailed assessment of contaminants in domestic and wild food supplies and the dietary habits of people living in the zone affected by the plume of uranium emissions.

Based on the information provided, the Commission concludes that Cameco has made, and will continue to make, adequate provision for the protection of workers and the public from radiation. The Commission is of the opinion that the small quantity of uranium released from the facility, and the near pre-development levels of uranium observed in the surrounding environment (see section 4.3 below) does not pose an unreasonable risk to people either through direct exposure or via the food chain.

4.2 Occupational Health and Safety

The Commission considered information on the non-radiological health and safety of workers at the Cameco Blind River Facility.

CNSC staff reported that Cameco has instituted an effective Health and Safety Committee as required by the *Canada Labour Code*. CNSC staff and Cameco noted that the Health and Safety Committee meets at least monthly and allows for the full participation of all levels of staff and management. CNSC staff also noted that Cameco is in compliance with all other applicable aspects of the *Canada Labour Code* and that CNSC staff coordinates its efforts with Human Resources Development Canada to monitor that compliance.

Cameco reported to the Commission that it has maintained a very high level of safety at the plant and, with the exception of two minor injuries in late 2001, no lost-time injuries had been recorded in nearly 12 years of operation.

The Commission questioned Cameco during the hearing on how it is able to promote and maintain the excellent safety record and safety culture at the facility. Cameco explained that the Blind River community is the source of a stable, close-knit and caring work force. Cameco also explained its use of creative methods in its Health and Safety Management System to help motivate workers to place priority on, and take personal responsibility for, safety. For example, employees are encouraged to practice routine self-assessments and complete regular training on specific tasks.

Based on the safety record and evidence of effective safety programs and safety culture at the Blind River Facility, the Commission is satisfied that Cameco is making, and will continue to make, adequate provisions to protect workers from non-radiological hazards at the facility.

4.3 Environmental Protection and Monitoring

The Commission considered information on the performance of Cameco in regard to the protection of the environment in the vicinity of the Blind River Facility.

CNSC staff noted that releases to the environment from the facility are being effectively controlled and monitored in accordance with the licence conditions and provincial regulatory requirements.

Cameco reported that several modifications were made to the effluent treatment system in 1996 to ensure consistent compliance with the requirements in the Ontario MISA (Municipal Industrial Strategy for Abatement) and Canadian Water Quality Guidelines. Cameco noted that although it experiences occasional problems in meeting the limits for total suspended solids due to algae growth in the lagoons, the effluent consistently meets all toxicity test requirements. Cameco reported that it has engaged a consultant to help solve the algae problem without compromising the quality of the effluent in terms of toxicity. Cameco continues to work with the Ontario Ministry of the Environment on finding a permanent solution to the algae problem.

Cameco also reported, during the course of the hearing, that it received ISO 14001 certification for its Environmental Management System (EMS). As part of its EMS, Cameco highlighted the emphasis placed on the reduction and recycling of waste. Cameco explained that through those measures it has been able to operate for over 18 years without having to access a low-level

radioactive waste management site. Cameco also pointed out that these practices have contributed to the recovery of a valuable energy resource. In response to questions from the Commission on the current stored inventory of solid radioactive waste, Cameco explained that this material is low-level, non-combustible and stable, and in Cameco's view, poses no risk to people or the environment. Cameco noted that it does not anticipate the need for a permanent on-site low-level waste management facility during the remaining life of the facility; however, such a facility is tentatively planned for the decommissioning phase.

CNSC staff explained that the principal contaminant pathway of concern to the environment at the facility is via potential uranium emissions to the air that could accumulate in surrounding soils. If allowed to accumulate in soil, uranium could affect the health of vegetation and biota in the soil. CNSC staff reported that ambient air quality monitoring in the vicinity has not detected air concentrations that could be harmful to people or other biota. Similarly, CNSC staff remarked that measured levels of uranium in the surrounding soils, although slightly elevated over background levels in limited areas, are not harmful to vegetation or soil invertebrates. Cameco added that the levels of uranium in soil are below those identified by the Ontario Ministry of the Environment for phytotoxicity and human effect. CNSC staff and Cameco also observed that the very slow rate of accumulation is such that, under normal operating conditions, levels of effect for vegetation, invertebrates or humans would not be reached over time.

During the hearing, the Commission explored with CNSC staff and Cameco whether there was enough of the right type of field sampling in the monitoring program to verify that non-human biota in the environment is being adequately protected. CNSC staff noted that although the monitoring program was initially designed for the protection of human health, the data is useful for making reasonable projections of the effects on non-human biota; however, without effects monitoring in the North Channel of Lake Huron, one cannot fully ascertain the magnitude of the effects on aquatic life. CNSC staff noted that environmental monitoring guidelines for Class I facilities are in development and that, based on that guidance, expansion of the monitoring program to include non-human end-points may be warranted. In anticipation of a broadened environmental monitoring program at the Blind River facility, CNSC staff indicated during the hearing that it proposed to require Cameco to initiate an environmental effects monitoring component during the next licence period. CNSC staff recommended to the Commission that the completion of such a program should not be considered a prerequisite to consideration of the current licence renewal application.

The Commission questioned Cameco as to why it had not taken the initiative to monitor the effects of its operation on potentially affected living organisms, particularly since some biological baseline data had been collected at the facility in the pre-operational stage. Cameco responded that it has placed its emphasis on pollution reduction and monitoring to ensure it remains well within ambient air and water quality guidelines and regulations that were designed for the purpose of protecting biota. Cameco also expressed the view that environmental setting around the plant poses challenges for the in situ monitoring of biota. For example, the resident population of clams near the facility is sparse and could be adversely affected by the sampling itself. Also, Cameco pointed out that the dynamic flows in the Mississauga River and resulting active morphology of the delta near the site may be contributing to the sparse benthic

populations in the area and would make it difficult to distinguish the effects of the facility from other natural factors.

In response to further questions from the Commission on the scope of the planned environmental effects monitoring activities in the North Channel, Cameco expressed the view that, subject to discussions with CNSC staff, the program design may begin with an examination of the sediment and sediment toxicity. Cameco expressed the opinion that fish monitoring may not be instructive given the relatively small impact area and wide range for the fish. In response to the same question from the Commission, CNSC staff added that the effects-monitoring program, to be meaningful, will need to be carefully designed, taking into account what is known about the quality and quantity of the effluents, how and where the effluents were disbursed and diffused in the environment, how the specific contaminants normally behave in the various environmental media, and what the site-specific characteristics of the receiving environment are. CNSC staff indicated that meetings with Cameco to begin discussing the program design were scheduled for February 5, 2002.

Intervenors (Northwatch and Sierra Club of Canada) expressed concern about the lack of environmental effects monitoring at the facility. Those intervenors objected to any suggested delay in fulfilling all environmental protection responsibilities under the *Nuclear Safety and Control Act* until monitoring guidelines are prepared. Sierra Club of Canada expressed concern about what it considers to be a total lack of sampling of biota and only very general water quality sampling in the current monitoring program. The Sierra Club of Canada expressed the view that a deadline for implementation of an acceptable environmental effects monitoring program should be specified in the licence conditions. Northwatch further requested that the public have direct input into the design of a phytotoxicology assessment in the area.

In regard to groundwater monitoring, Cameco reported during the hearing that it plans to add five new monitoring wells to its existing 16-well network. In response to a question from the Commission, Cameco explained that these wells are needed to detect and facilitate immediate response to chemical spills in key locations. The Commission further explored with Cameco why new groundwater wells were not being contemplated on, or in the vicinity of, the tentatively planned long-term decommissioning waste management mound. The Commission questioned whether it would not be advantageous to gather valuable pre-development baseline data at that location. Cameco expressed the view that there will be adequate time to gather baseline data when the plans for the waste storage mound become more certain. Cameco indicated, however, that the Commission's suggestion would be considered further in discussions with CNSC staff during the review of the overall environmental monitoring program.

During the hearing the Commission questioned CNSC staff and Cameco as to whether the proposed addition of hourly air emission limits in the licence (i.e., which replace the former yearly limits) would place undue hardship on the licensee. Cameco and CNSC staff confirmed that the change would not pose an undue burden given the consistent very low rates of emission. CNSC staff further explained that the hourly limit will provide a better basis for compliance monitoring.

Based on the information presented, the Commission is satisfied that Cameco is making, and will continue to make, adequate provisions for the protection of the environment.

However, because there remains uncertainty and public concern with respect to the accumulation of uranium and other contaminants in the environment, and because direct monitoring of the environmental effects on the biota has yet to be instituted, the Commission concurs with the CNSC staff recommendation that a detailed status report on the environmental performance of the facility (among the other performance matters outlined in the appendix to CMD 01-H31.A) be brought before the Commission at the mid-term of the licence period (approximately in 2.5 years). In addition, the Commission requests CNSC staff to provide an information report to the Commission in one year on the status of the design and implementation of the proposed environmental effects monitoring program.

4.4 Qualifications of the Proponent

Before issuing a licence, the Commission must be satisfied that Cameco is qualified to carry out the proposed activities under the licence. In this regard, the Commission considered the overall positive recommendation of CNSC staff and the other information provided for the hearing. Cameco made reference to what it considers to be a well-trained and experienced workforce with a low rate of turn-over and impressive safety and environmental protection record.

Based on the information presented, the Commission concludes that Cameco is qualified to carry out the proposed activities.

4.5 Quality Assurance

CNSC staff reported that although Cameco has a comprehensive and effective quality assurance program for the facility, Cameco is not yet in compliance with the CNSC's requirements for the integration of quality assurance at the corporate level. To address this deficiency, CNSC staff recommended the addition of a licence condition that requires Cameco to submit, prior to April 30, 2002, a schedule and plan for completing the corporate component of the quality assurance program.

Cameco expressed its commitment to corporate quality assurance and is actively bringing all of its facilities under corporate oversight as directed by the CNSC and in accordance with an ISO-compatible British standard.

Upon consideration of the above information, the Commission concludes that Cameco is taking adequate steps to comply with all CNSC quality assurance requirements. However, the Commission also concurs with CNSC staff's recommendation to include a licence condition that requires Cameco to submit to the CNSC, by April 30, 2002, a plan and schedule for addressing the remaining quality assurance requirements.

4.6 Safeguards and Security

CNSC staff reported that Cameco has met all safeguards licence conditions and provided all of the information for, and made all of the preparations necessary in support of, Canada's safeguard agreement (and Additional Protocol) with the International Atomic Energy Agency (IAEA). CNSC staff reported that the IAEA had exercised the right to request access to the facility and that complementary access was performed at the site in July 2001.

CNSC staff further reported that Cameco continues to implement adequate security measures at the facility and has responded appropriately to the recent CNSC Order for enhanced security at nuclear facilities following the terrorist events in the United States on September 11, 2001.

Based on the above information, the Commission is satisfied that Cameco is making adequate provisions for security and safeguards at the Blind River facility.

4.7 Emergency Preparedness and Response

CNSC staff reported that Cameco's Emergency Preparedness and Response Plan is acceptable and compliant with CNSC guide document G-225.

During the hearing, the Commission sought clarification on the various roles and responsibilities of Cameco and the off-site authorities in emergency planning and response. Those off-site authorities include the municipality, police, fire department, CNSC and Emergency Measures Ontario (EMO). Sierra Club of Canada, in its intervention, stressed the need for clearly defined roles and responsibilities for emergencies, including for alerting and educating the public. Northwatch requested in its intervention that the Commission require that Cameco, as a condition of the licence, include discussion of the emergency plan on the agenda for each meeting of the *Blind River Area Environmental Monitoring Committee*.

In response to the Commission's request for clarification, CNSC staff explained in its supplementary information to the hearing that Cameco liaises closely with the local emergency groups (volunteer fire department and Ontario Provincial Police (OPP)) for the purpose of conducting site visits, meetings and training as required. The Town of Blind River, represented by the Fire Chief, liaises with EMO for the purpose of maintaining an up-to-date Emergency Plan for the Town. In the event of an emergency, Cameco notifies both the Town and the CNSC, and the Town in turn notifies EMO. If the emergency involves nuclear material, EMO will be notified by CNSC and the EMO's response will be in accordance with the *Ontario Nuclear Emergency Plan, Part VIII* (for non-power reactor nuclear emergencies).

The Town of Blind River expressed full satisfaction with Cameco's emergency plan. The Town is also satisfied with Cameco's efforts to inform the local responders, and to integrate their needs and responsibilities into the plan.

With respect to fire safety at the facility, CNSC staff noted that Cameco has an acceptable Fire Safety Plan and that the plan has been appropriately communicated to off-site response groups.

CNSC staff explained that actions are underway to ensure the facility is in compliance with the *National Fire Code* and *National Building Code*. CNSC staff reported during the hearing that Cameco had completed all of the critical actions required to bring the facility into compliance with the fire and building codes, and that the remainder of the work will be done in 2002 in accordance with a schedule accepted by CNSC staff. CNSC staff indicated that follow-up on fire safety items should not preclude the Commission's consideration of the proposed continued facility operations.

CNSC staff pointed out that five fire-safety licence conditions which refer to the national fire and building codes are being proposed for all Class I facility licences and that these same conditions are recommended for inclusion in the Blind River facility licence.

CNSC staff noted that it is also examining the United States *National Fire Prevention Association Standard 801(NFPA-801)* which is specific to facilities handling radioactive material. Additional fire safety requirements may be identified by CNSC staff from that review. CNSC staff noted that formal discussions with all of the fuel facility licensees on the potential applicability of NFPA-801 will begin in February 2002.

In response to questions from the Commission on the fire safety reviews conducted by both the CNSC and Cameco fire safety consultants, CNSC staff explained that the two studies are complementary rather than in conflict. Cameco's consultant was tasked to follow-up in greater detail on the preliminary findings of CNSC's consultant. CNSC staff reported that the proponent's consultant report is now complete and that, as noted above, all recommended critical actions have been taken by Cameco. CNSC staff indicated its satisfaction with progress on these issues.

Based on the information summarized above, the Commission is of the opinion that Cameco is adequately prepared for, and able to respond effectively to, emergencies that could arise at the Blind River facility, including those involving fire.

4.8 Public Information Program

Cameco reported that it meets on a semi-annual basis with the *Blind River and Area Environmental Monitoring Committee*. The facility manager also meets on a regular basis with the Mayor of Blind River, the Chief of the Mississauga First Nation, the local Fire Department, and the Ontario Provincial Police to discuss issues related to plant activities, operations and emergency planning. Cameco also hosts regular plant visits and tours for the public. CNSC staff expressed its satisfaction with Cameco's public information program.

In its intervention to the hearing, the Town of Blind River also expressed satisfaction with the level of communication with Cameco.

Another intervenor (Northwatch) expressed the view that public communications should be improved and made mandatory under the operating licence. Northwatch recommended that the

CNSC should require in the conditions to the licence a minimum of four meetings per year with the *Blind River Area Environmental Monitoring Committee (BRAEMC)*, and that those meetings should be required to include discussion of all safety reports, annual reports to the CNSC, reports to the municipality, and any other incident reports to the CNSC. Northwatch further considers that all of the above-noted reports should be readily available in both the CNSC and Blind River libraries. Northwatch also requested that the Commission specify in the licence the membership of the BRAEMC, its authorities and funding, and mandate to complete a fully independent social and community impact assessment.

With respect to the availability of information to the public, Cameco explained that the Plant Manager personally gives high priority to liaising with the BRAEMC and other community groups and confirmed that all of the quarterly performance reports and MISA reports are available to the public at the Town Office.

Based on the above information provided by CNSC staff, the proponent and intervenors, the Commission is satisfied that Cameco has an adequate public information program. The Commission does not consider that further licence conditions are required to ensure a continued appropriate exchange of information with the public, nor does the Commission consider it necessary to require a social impact assessment of the Blind River operation.

4.9 Decommissioning Plans and Financial Guarantees

During the initial part of the hearing, CNSC staff noted that Cameco was expected to submit a revised Preliminary Decommissioning Plan and related financial guarantee prior to the conclusion of the hearing. In its supplementary information to the hearing, CNSC staff confirmed that this information had been received and that it was under review by CNSC staff. CNSC staff indicated its satisfaction with the financial instrument used for the assurance (letter of credit), but that the cost estimate of \$14.6 million, although not appearing unreasonable, still needed detailed review by CNSC staff prior to final acceptance of an amount. CNSC staff expressed the opinion that \$14.6 million is acceptable in the interim and noted that the amount may be subject to periodic revision by CNSC staff based on such things as changes at the facility and advances in decommissioning and decontamination technologies. CNSC staff further recommended the inclusion of a licence condition that requires Cameco to maintain a financial guarantee for decommissioning that is acceptable to the Commission, or person authorized by the Commission.

Intervenors to the hearing (Northwatch and Sierra Club of Canada) expressed the view that CNSC should not accept the decommissioning plans and the amount of the financial guarantee without first conducting a full public review and assessment by a third party expert.

In response to the concerns of the above intervenors, the Commission sought clarification from CNSC staff during the hearing on the process followed to determine the acceptable amount of a decommissioning guarantee. CNSC staff explained that the requirements for Preliminary and Detailed Decommissioning Plans are set out in publicly available CNSC regulatory guidance documents. CNSC staff explained that the Preliminary Decommissioning Plan (PDP) is meant to

demonstrate the feasibility of the decommissioning approach and to provide enough information about the scope of the decommissioning and related waste management works to support a conservative estimate of the relevant costs. Staff explained that the PDP is maintained current during the life of a facility to ensure the amount of the financial guarantee remains reasonable. A Detailed Decommissioning Plan sets out the specific safety and environmental protection measures for decommissioning and is required in support of a decommissioning licence application.

Based on the information provided, the Commission is satisfied with the progress being made by Cameco to address the CNSC's requirements for decommissioning plans and financial guarantees. The Commission is of the opinion that CNSC staff is able to judge the adequacy of the Preliminary Decommissioning Plan and related cost estimates on behalf of the Commission without the need for additional public hearings on the matter. The Commission also considers that CNSC staff may determine if there is any need for outside expert assistance in carrying out those reviews. The Commission also notes that an application for a decommissioning licence by Cameco, including a Detailed Decommissioning Plan, must come to a public hearing before the Commission for a decision prior to the decommissioning of the facility.

4.10 Canadian Environmental Assessment Act

CNSC staff expressed the view that a further environmental assessment of the facility operations pursuant to the *Canadian Environmental Assessment Act* (CEAA) is not required due to the fact that a federal environmental assessment of the project had been previously conducted and that the appropriate impact mitigation measures have been substantially implemented. CNSC staff concluded that this enabled the application of provisions of the CEAA *Exclusion List Regulations* (specifically Section 2, of Part I of Schedule I of those regulations).

Based on the information presented, the Commission concurs with CNSC staff's conclusion that a further environmental assessment of the proposed continued operation of the Blind River Facility under the CEAA is not required.

4.11 Licence Term

Cameco applied to the CNSC for the renewal of its operating licence for a period of five years. Previously, the licence term for this facility was two years. CNSC staff recommended that the Commission accept the proposed five-year term on the basis of a number of factors described in CMD 01-H31, one of which was the lack of outstanding, substantial regulatory issues.

During the early stage of the hearing, the Commission requested staff and Cameco to provide a detailed forecast of the changes likely to occur in the facility operations and the regulatory environment during the proposed five-year period. The Commission also requested CNSC staff to consider how the effect of significant foreseeable changes would be brought to the attention of the Commission and the public during the licence period.

In its supplementary information to the hearing, CNSC staff reviewed the status of regulatory issues at the site and recommended that the Commission accept CNSC staff's proposal to report on those issues at a public proceeding of the Commission at approximately the mid-term of the five-year licence (i.e., in approximately 2.5 years). Cameco, in its supplementary information to the hearing also outlined the planned operational changes likely to occur over the next five years. Those changes include the introduction of the new internal dosimetry program, the finalization of the corporate quality assurance program, and general continued optimization of the safety and operations of the facility.

In response to a question from the Commission on possible fluctuations in production rates at the facility, Cameco explained that any foreseeable increases in production could be accommodated by increased shifts as opposed to any expansion of the physical plant. Cameco currently plans to remain within the 18,000 tonne annual limit. Any increase from the limit would be subject to the approval of the CNSC.

Northwatch and Sierra Club of Canada, in their interventions, recommended against a five-year licence term, stating that many significant issues remain outstanding; for example, with respect to environmental monitoring, fire prevention, emergency response, decommissioning plans and financial guarantees, and quality assurance. Sierra Club of Canada stressed its view that the Commission should review the facility operating issues in a public forum at least every two years.

Based on the information provided, the Commission Members concluded that a five-year licence term is acceptable. The Commission, however, requires that CNSC staff present a detailed status report to the Commission at the mid-term of the licence period (i.e., in 2.5 years). The Commission further requests that CNSC staff present to the Commission in one year an information report specific to the design and implementation of the environmental effects monitoring program.

5. Conclusion

The Commission has considered the information and submissions of CNSC staff and all participants as set out in the material available for reference on the record, as well as the oral and written submissions provided or made by the participants at the hearing.

The Commission is of the opinion that the applicant satisfies the requirements of subsection 24(4) of the *Nuclear Safety and Control Act*.

The Commission therefore issues, pursuant to section 24 of the *Nuclear Safety and Control Act*, licence FFOL-3632.0/2007 to Cameco Corporation. The licence will be valid from March 1, 2002 to February 28, 2007, unless suspended, amended, revoked or replaced.

The Commission requests that CNSC staff prepare a status report at the mid-point during the five-year term of the licence (in approximately August 2004). The CNSC staff's status report shall be presented at a public proceeding of the Commission and will provide a detailed

summary of the performance of the licensee and facility (as proposed in the Appendix to CMD 01-H31.A), including the results of revised CNSC staff projections of the effects of the Blind River Facility on the health and safety of persons and the environment. The status report will be made available in advance of that public proceeding so that the licensee and the public have an opportunity to provide comments on the report. The Commission also requests CNSC staff to present an information report to the Commission after one year (in approximately February 2003) on the status of the design and implementation of the environmental effects monitoring program.

Marc A. Leblanc
Secretary,
Canadian Nuclear Safety Commission

Date of decision: January 17, 2002

Date of release of Reasons for Decision: February 18, 2002

Appendix A

Intervenors	Document Number
The Corporation of the Town of Deep River	CMD 01-H31.2
The Town of Blind River	CMD 01-H31.3
Northwatch	CMD 01-H31.4
Sierra Club of Canada - Nuclear Campaign	CMD 01-H31.5