

Record of Proceedings, Including Reasons for Decision

In the Matter of

Applicant Cameco Corporation

Subject Environmental Assessment (EA) Guidelines
(Scope of Project and Assessment) for the
proposed Key Lake Uranium Mill and McArthur
River Mine production increase

Date November 1st, 2004

RECORD OF PROCEEDINGS

Applicant: Cameco Corporation

Address/Location: 2121-11th Street West, Saskatoon, Saskatchewan, S7M 1J3

Purpose: Environmental Assessment (EA) Guidelines (Scope of Project and Assessment) for the proposed Key Lake Uranium Mill and McArthur River Mine production increase

Application received: December 12, 2002

Date(s) of hearing: September 15, 2004

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
J.A. Dosman M. Taylor

General Counsel: J. Lavoie
Secretary: M.A. Leblanc
Recording Secretary: C. Taylor

Applicant Represented By	Document Number
<ul style="list-style-type: none">• T. Rogers, Senior Vice President and Chief Operating Officer• J. Jarrell, Vice President of Safety, Health and Environment• W. Buck, General Manager of Key Lake and McArthur• G. White, Superintendent, Environmental Assessment in the Safety, Health and Environment Department	CMD 04-H20.1
CNSC Staff	Document Number
<ul style="list-style-type: none">• B. Howden• K. Scissons• M. Rinker	CMD 04-H20 CMD 04-H20.A
Intervenors	Document Number
See Appendix A	

Date of Decision: September 15, 2004

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1. Introduction

Cameco Corporation (Cameco) has applied to the Canadian Nuclear Safety Commission (CNSC¹) for permission to increase production at its Key Lake Uranium Mill and McArthur River Uranium Mine facilities. Cameco is proposing to increase the production from those facilities by 18% from 7.2 million kilograms of uranium per year to 8.5 million kilograms of uranium per year. For the production increase to occur, the Commission would have to amend the existing uranium mine and mill operating licences for the facilities.

Before the Commission can decide on the proposed licence amendments, the Commission must, in accordance with the requirements of the *Canadian Environmental Assessment Act* (CEAA)², make a decision on an environmental assessment (EA) of the proposal. The Commission is the sole responsible authority for the EA³.

In carrying out its responsibility under the CEAA, the Commission must first determine the *scope of the project* and the *scope of the assessment*. To assist the Commission in this regard, CNSC staff prepared a draft Environmental Assessment Guidelines document (EA Guidelines) after consulting with other government departments, the public and other stakeholders. The draft EA Guidelines contained draft statements of scope for the approval of the Commission. The draft EA Guidelines also contained recommendations and instructions for the approach to be used in completing the EA, including for the conduct of further public and stakeholder consultations. The draft EA Guidelines are attached as Appendix A to CMD 04-H20.

Issues:

In considering the EA Guidelines, the Commission was required to decide, pursuant to subsections 15(1) and 16(3) of the CEAA respectively:

- a) the *scope of the project* for which the EA is to be conducted; and
- b) the *scope of the factors* to be taken into consideration in the conduct of the EA.

The Commission also considered whether it would, at this time, request the federal Minister of the Environment, pursuant to section 25 of the CEAA, to refer the project to a mediator or a review panel.

Public Hearing:

The Commission, in making its decision, considered information presented for a public hearing held on September 15, 2004 in Ottawa, Ontario. The public hearing was conducted in accordance with the *Canadian Nuclear Safety Commission Rules of Procedure*. During the

¹ In this *Record of Proceedings*, 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.

² S.C.,(1992). c.37

³ Responsible Authority in relation to an EA is determined in accordance with subsection 11(1) of the CEAA

public hearing, the Commission received written submissions and heard oral presentations from CNSC staff (CMD 04-H20 and CMD 04-H20.A) and Cameco (CMD 04-H20.1). The Commission also considered oral and written submissions from three other intervenors, including: the Nuclear Workers Council jointly with the United Steel Workers of America, Local 8914 (CMD 04-H20.2); the Northern Saskatchewan Environmental Quality Committee, South Central Subcommittee (CMD 04-H20.3); and M. Shiell (CMD 04-H20.4).

2. Decision

Based on its consideration of the matter, as described in more detail in the following sections of this *Record of Proceedings*,

the Canadian Nuclear Safety Commission, pursuant to sections 15 and 16 of the CEAA, approves the *EA Guidelines (Scope of Project and Assessment), Environmental Assessment of Proposed Production Increase for the Key Lake Uranium Mill and McArthur River Mine* set out in Appendix A of CMD 04-H20, as modified by the Commission below.

The Commission also decides that it will not, at this time, refer the project to the Minister of the Environment for his referral to a mediator or review panel.

The Commission makes the following changes to the above-referenced EA Guidelines:

In section 9.2.1 under the heading “*Construction, Modifications and Normal Operations*”, the bullet which reads as “the source of drinking water for on-site workers” is modified to read as “the source of drinking and non-potable water for on-site workers”.

In the same section, the bullet which reads as “the sources and characteristics of any fire hazards” is modified to read as “the sources and characteristics of any fire and mine-flooding hazards”.

In section 9.2.9 under the heading “*Follow-up Program*”, the second sentence in the second paragraph is replaced with the following text:

“The follow-up program will be summarized in a table that identifies for each monitoring element, the purpose of the monitoring (e.g., to verify predictions or to determine if a specific mitigation measure is effective) and the specific pathway or environmental component that is to be monitored (e.g., effluent, air emissions, Valued Ecosystem Component).

As the Responsible Authority for this environmental assessment, the CNSC is the agency responsible for ensuring that the follow-up program is properly designed and implemented, and that the results are made available to the public. If the project is authorized to proceed, the Commission, using the delegation provisions under section 17

of the CEAA and its licensing and compliance programs under the *Nuclear Safety and Control Act*, would require that Cameco properly implement the follow-up program.”

3. Issues and Commission Findings

3.1 Application of the CEAA

The CEAA requires that an EA be completed if there is both a prescribed action by a federal authority (commonly referred to as a “trigger”) and a “project”. In this case, the “trigger” prescribed in the *CEAA Law List Regulations* is the need for the CNSC to amend licences to allow the project to proceed. The “project” is the proposed operation of the McArthur River Mine and Key Lake Mill at a maximum annual production rate of 8.5 million kilograms of uranium. While the operation of the facilities up to 7.2 million kilograms of uranium per year was the subject of previous federal EAs⁴, the effect of the operations at higher production rates had not been contemplated in those EAs and therefore the *CEAA Exclusion List Regulations* do not apply in this case.

Based on this interpretation of the CEAA, the Commission concludes that an EA of the proposed production increase is required pursuant to the CEAA.

3.2 Type of Environmental Assessment Required

Screening vs. Comprehensive Study, Review Panel or Mediation:

CNSC staff explained that because the project is not of a type described in the *CEAA Comprehensive Study List Regulations*, a “screening” environmental assessment would be conducted, and a *Screening Report* prepared in accordance with subsection 18(1) of the CEAA.

Another available type of assessment under the CEAA is a review panel or mediator appointed by the federal Minister of the Environment. The Commission may request such a referral at any time during the environmental assessment pursuant to section 25 of the CEAA. In this regard, CNSC staff stated that it is not aware at this time of any potential environmental effects or public concerns associated with this project which CNSC staff considers would warrant having the project referred to a mediator or review panel (see section 3.3 below for a discussion of the Commission’s findings with respect to the adequacy of the public and stakeholder consultations carried out to date for this EA).

⁴ Report of the Joint Federal-Provincial Panel on Uranium Mining Developments in Northern Saskatchewan, ‘*McArthur River Uranium Mine Project*’, February 1997; and

Canadian Environmental Assessment Act Screening Report, ‘*Application by Cameco Corporation to the Atomic Energy Control Board to Renew Key Lake Operation Mining Facility Operating Licence AECB-MPOL-164-2.1*’, 1995.

Based on this information, the Commission concludes that a Comprehensive Study EA of the project is not required. Furthermore, with respect to the options of mediation or review panel, the Commission decided that, at this time, it will not refer the project to the Minister of the Environment for that purpose. A “screening” is therefore the type of EA that will be carried out. The Commission requires that CNSC staff inform the Commission in a timely manner of any significant issues or public concerns that arise during the conduct of the EA and which may warrant further consideration of the need for a review panel or mediator.

Federal or Joint Federal-Provincial Process:

Noting that provisions exist for conducting joint federal-provincial environmental assessments in certain cases, the Commission questioned CNSC staff on why this was not considered in this case. In response, CNSC staff stated that the Province of Saskatchewan, based on the environmental information provided to it by Cameco in its project proposal (including a supplemental submission on cumulative effects and public concerns), determined that an EA under the Saskatchewan *Environmental Assessment Act* (i.e., the type of EA that could warrant consideration of a joint process) was not required. The Commission therefore concludes that a joint EA with the Province of Saskatchewan is not a consideration in this case.

3.3 Consultations on the Draft EA Guidelines

As part of its review of the adequacy of the draft EA Guidelines and, in particular, to assess the level of public concern about the project for the purpose of considering the aforementioned options for mediation or review panel, the Commission took account of the views of the public and other stakeholders. In this regard, the Commission considered whether the consultations carried out thus far by CNSC staff and the proponent have provided the public and other stakeholders with adequate opportunity to become informed, and express their views about the EA. Refer to section 3.5 below for a discussion of the Commission’s findings on the planned public consultations during the conduct of the EA studies.

Public Consultation:

With respect to public consultation on the draft EA Guidelines, CNSC staff reported that it identified the project in the internet-based *Federal Environmental Assessment Index* and established a “public registry” of related documents in accordance with the requirements of the CEAA. The initial draft EA Guidelines were also made available for public review and comment. Comments were received from the Northern Mines Monitoring Secretariat of the Northern Saskatchewan Environmental Quality Committee (EQC).

CNSC staff reported that Cameco also initiated consultation on the project with the public and interested stakeholders and, in particular, has discussed the selection of Valued Ecosystem Components (VECs) to be used in the EA with the EQC – South Central Subcommittee.

The EQC – South Central Subcommittee, in its intervention, stated that the various on- and off-site consultations on the project have provided the EQC representatives and the impacted

communities with a good understanding of the purpose of the proposed production increase and changes that would be required on the sites. The EQC – South Central Subcommittee expressed its satisfaction with the way Cameco is involving Northerners and northern communities through organizations like the EQCs and by periodically coming to the communities to meet the people and respond to their questions. The EQC – South Central Subcommittee added that the people of Northern Saskatchewan are strong advocates of environmental protection and that they are desirous of effectively participating in the EA and regulatory processes to protect their future.

The Canadian Nuclear Workers Council and United Steel Workers of America, in their joint intervention, also attested to the workers' commitment to ensuring the environment is protected and that they will not hesitate to intervene on environmental issues or concerns if they arise.

Government Consultation:

CNSC staff reported that, in accordance with the *CEAA Federal Coordination Regulations*, CNSC staff has consulted on the draft EA Guidelines, and will continue to consult during the EA, with Health Canada and Natural Resources Canada. CNSC staff reported that no other federal departments identified themselves as Responsible Authorities for the EA, or as expert federal authorities for the purpose of providing technical assistance.

With respect to this federal coordination, the Commission questioned CNSC staff on why Environment Canada and Fisheries and Oceans Canada were not formally identified for this assessment. In response, CNSC staff stated that those departments had been formally contacted. However, both departments confirmed that they were not Responsible Authorities for the EA and that they did not consider it necessary to participate as expert authorities. CNSC staff noted, however, that both Environment Canada and Fisheries and Oceans Canada are involved as part of a joint regulatory review group that is engaged in all aspects of the CNSC's facility licensing and compliance activities. That joint review group will continue to be involved in the proposed production increase project if it proceeds to the licensing stage. Cameco also noted that the regulatory departments, including Environment Canada and Fisheries and Oceans Canada, were provided with the project proposal that included detailed information on many of the areas of interest to those departments.

Consideration of Comments:

CNSC staff noted that all comments received during the above consultations were taken into consideration in the preparation of the draft EA Guidelines presented to the Commission for approval at this hearing. Information on the disposition of each comment was attached as Appendix B of the draft EA Guidelines (attached to CMD 04-H20).

Noting that very few comments on the draft EA Guidelines were received from the consultations, the Commission questioned CNSC staff as to whether all reasonable efforts had been made to seek comments from the public and other stakeholders. CNSC staff confirmed its satisfaction with the consultation process and noted that the CNSC provides considerably more opportunities for consultation throughout in the screening EA process than is normally expected.

Conclusion on the EA Guidelines Consultations:

Based on this information, the Commission is satisfied that the public and other stakeholders have been adequately consulted during the preparation of the draft EA Guidelines. The Commission is also satisfied that, for the purpose of considering whether to refer the project to Minister for a review panel or mediation, it has sufficient information to assess the current level and nature of public concern about the project.

3.4 The Scope of the Project

“Scope” under the CEEA is expressed in two parts: the *scope of the project* (i.e., the physical works and activities proposed) and the *scope of assessment* (i.e., the scope of the factors to be considered in assessing the effects of the project). This section addresses only the issues relating to the *scope of the project*. The issues related to the *scope of assessment* are discussed below in section 3.5.

CNSC staff recommended that the Commission define the scope of the project as encompassing the Key Lake Mill, the McArthur River Mine and the haul road connecting these facilities. More specifically with respect to the Key Lake Mill, CNSC staff identified the following relevant components and activities:

- mineralized waste storage;
- crushing circuit;
- grinding/ore receiving/blending circuit;
- solvent extraction circuit;
- yellowcake precipitation circuit;
- calcining/packaging circuit;
- ammonium sulphate crystallization circuit;
- bulk neutralization circuit; and
- tailings management operation.

For the McArthur River Mine, CNSC staff identified the following relevant components and activities within the proposed scope of the project:

- ore production plant;
- waste and mineralized rock management;
- ore processing (underground grinding and slurry loadout);
- ventilation; and
- waste water handling and treatment.

CNSC staff noted that the current operations were the subject of earlier environmental assessments and are permitted under the existing licences issued by the CNSC. CNSC staff recommended therefore that the scope of the project be limited to the changes to the above physical works and activities that would be required to achieve the proposed increase in annual uranium production. As such, the EA would focus on the incremental change in effects from the

current operations. While the currently licensed operations would not form part of the project, the environmental effects of the current operations, as discuss further below in section 3.5, would be considered in the context of cumulative environmental effects.

CNSC staff further recommended that the approach to the eventual decommissioning of the Key Lake Mill and McArthur River Mine, to the extent that it may be affected by the proposed production increase project, be included in the assessment. To facilitate this, CNSC staff recommended that the Commission include in the EA consideration of updated Preliminary Decommissioning Plans for the facilities.

With respect to the types of physical changes that will likely be necessary to achieve the higher production, Cameco explained that the capability of the Key Lake mill to operate at the higher production rates has already been demonstrated and that little if any changes or additions to the mill or mine effluent treatment systems will be required. In the past, the mill has had to be shutdown before year-end because the existing annual production licence limits had been reached.

Cameco noted that one additional raise bore at the McArthur River mine may be needed to sustain the higher production rate, but there remains sufficient unused capacity in the rest of the systems at the mine. Cameco explained that, while the rate of reagent use and waste production may be higher, the total amounts used and produced over the life of the mine and mill, including total contaminant loadings to the environment, are not expected to change.

In response to questions from the Commission on the scope of the project, CNSC staff confirmed that, in the event existing equipment must be removed or replaced to complete the project, the disposal of the used surplus equipment is within the scope of the project described in the draft EA Guidelines.

In response to the Commission's questions on how the transport of ore slurry between the mine and the mill would be included in the project scope, CNSC staff confirmed that any incremental increase in the traffic between the sites would be included within the "haul road" component identified in the proposed scope of the project. Cameco noted that it anticipates the EA will demonstrate that the change in the already light volume of traffic between the sites will be small and not likely significant.

Based on the above information, the Commission accepts the CNSC staff's recommendations concerning the *scope of the project* and approves the definition of the project scope as set out in section 7.0 of the draft EA Guidelines without change.

3.5 The Scope of the Assessment

The other part of "scope" under the CEAA is the *scope of the assessment* – otherwise described in the CEAA as the scope of the factors that will be considered in assessing the environmental effects of the project.

Statutory Factors and CNSC Staff Recommendations:

CNSC staff explained that the scope of a screening assessment under the CEAA must include the factors set out in paragraphs 16(1)(a) to (d) of the CEAA. Other factors may be included at the discretion of the Commission under paragraph 16(1)(e) of the CEAA.

CNSC staff stated that the mandatory factors in subsection 16(1) of the CEAA are: the environmental effects of the project, including as may be caused by malfunctions or accidents and any cumulative environmental effects with other projects; the significance of the effects identified above; comments from the public that are received in accordance with the CEAA and its regulations; and measures that are technically and economically feasible that would mitigate any significant adverse environmental effects of the project.

In addition to these factors, CNSC staff recommended that the Commission include, pursuant to paragraph 16(1)(e), the following factors: the purpose of the project and the need for the project from Cameco's perspective; consideration of traditional and local knowledge; and the need for, and requirements of, a follow-up program in respect of the project.

Effects on Non-Human Biota:

M. Shiell, in her intervention, stressed the importance of ensuring that the EA assesses the effects of radiological releases from the site (alpha emitting Radium-226 and its decay products in particular). To make this more explicit in the EA Guidelines, M. Shiell recommended modifying the wording of the factor required under paragraph 16(1)(b) of the CEAA so that it refers specifically to the radiological and chemical effects on animal cells, and to the survival and reproduction of exposed biota.

In response to these suggested modifications, CNSC staff stated that the wording proposed by M. Shiell could, in CNSC staff's opinion, inappropriately narrow the scope of the assessment. CNSC staff expressed the view that the more general wording in the draft EA Guidelines would ensure that the effects described by the intervenor would fall within the scope of the assessment. Furthermore, CNSC staff noted that the mandatory assessment factor described in paragraph 16(1)(b) of the CEAA is part of the statute and therefore can only be altered through the legislative amendment process.

The Commission considered the above-noted suggestions of M. Shiell and determined that the proposed scope of the assessment, as set out in the draft EA Guidelines is sufficient to ensure that the effects of the project on non-human biota from all sources will be included in the EA. The Commission also observed that this is supported by a number of specific references to non-human biota in the current draft EA Guidelines document.

Effects on Humans (Workers):

With respect to the potential effects of the project on the mine and mill workers, the Commission asked the joint intervenors (the Canadian Nuclear Workers Council and the United Steel Workers of America) if they were satisfied that the radiological and non-radiological safety of

the workers would be adequately captured in the scope of the assessment. Those intervenors confirmed their satisfaction with this aspect of the EA Guidelines.

Malfunctions and Accidents – Mine Flooding:

With respect to the above-noted requirement of the CEEA to consider the effects of accidents and malfunctions, the Canadian Nuclear Workers Council and the United Steel Workers of America, in their joint intervention, discussed an incident involving an uncontrolled inflow of water to the McArthur River Mine in 2003. While concerned that similar events may occur in the future, these intervenors expressed their general satisfaction with how the effects of the incident in 2003 were mitigated.

With respect to how a mine-flooding incident would be considered in the EA, the Commission is generally satisfied that the requirements in the EA Guidelines to consider malfunctions and accidents would capture how the production increase project may affect the potential for, and effects of, future mine-flooding incidents. Nevertheless, and taking into account the nature of some of the risks posed by the 2003 incident, the Commission is of the view that this requirement could be further clarified in the methodology section of the EA Guidelines document. See section 3.6 below for a further discussion of the Commission's findings with respect to the assessment methodology, including the Commission's required modifications to the wording in the EA Guidelines to provide the necessary clarification on malfunctions and accidents.

Cumulative Effects:

Noting that the scope of the project in this case consists of incremental changes to already large uranium mining and milling operations, the Commission questioned CNSC staff on how the environmental effects of the current operations will be taken into account in the assessment of cumulative effects.

In response, CNSC staff explained that the assessment of cumulative effects requires examination of the effects of the project together with the effects of other past, present and future projects that will exist in the same environmental space and time. CNSC staff noted that the past, present and future operations of the existing mine and mill may indeed exist in the same space and time as the proposed production increase project; however, if the incremental effects of the production increase are not distinguishable from the current operational effects, then a detailed assessment of cumulative effects would not be necessary to draw conclusions on this aspect of the EA. The Commission finds this explanation satisfactory.

Conclusions on Scope of the Assessment:

Based on the above information and considerations, the Commission concludes that the scope of the assessment, as described in section 8.0 of the draft EA Guidelines, is appropriate for the purpose of the environmental assessment of the proposed project.

3.6 Environmental Assessment Structure and Approach

The draft EA Guidelines, in addition to defining scope, contains instructions relating to the structure and approach to be used in conducting and documenting the environmental assessment. Therefore, in its consideration of the acceptability of the draft EA Guidelines document, the Commission also considered the recommended structure and approach for the assessment.

With reference to sections 9.0 and 10.0 of the draft EA Guidelines, CNSC staff outlined the proposed structure, methods and sequence for completing and documenting the environmental assessment studies and Screening Report. This includes instructions for describing: the project (construction, modifications, normal operations, accidents and malfunctions, and decommissioning); the spatial and temporal boundaries of the assessment; the existing environment; the assessment and mitigation of environmental effects (caused by the project and by the environment on the project); the assessment of cumulative effects; the assessment of the effects on the capacity of renewable and non-renewable resources, the significance of residual effects (post mitigation); the conduct of stakeholder consultations throughout the assessment; and the design and implementation of a follow-up program.

Malfunctions and Accidents:

For the reasons noted above in section 3.5 of this *Record of Proceedings*, and to clarify that the effect of the project on the potential for, and consequences of, a mine-flooding incident will be captured in the EA, the Commission makes the following modifications to section 9.2.1 of the EA Guidelines (Project Description – Construction, Modifications and Normal Operations):

- the bullet which reads as “the source of drinking water for on-site workers” is changed to read as “the source of drinking and non-potable water for on-site workers”; and
- the bullet which reads as “the sources and characteristics of any fire hazards” is changed to read as “the sources and characteristics of any fire and water inflow hazards”.

Spatial and Temporal Boundaries:

On the matter of spatial and temporal boundaries of the assessment, M. Shiell, in her intervention, stated that some of the effects may, in her view, be significant for thousands of years and extend widely into the environment over time. In response to this intervention, the Commission is satisfied that the proposed scope of the assessment includes a determination of the significance of the effects, and allows for the temporal and spatial boundaries of the studies to be flexible so that the full extent of any identified significant effect is described.

Determination of Significance:

In her intervention, M. Shiell also raises concerns and makes recommendations with respect to assessing the significance of the predicted effects. On these points, the Commission is also satisfied that the proposed approach described in the EA Guidelines is sufficient to capture the topics identified by M. Shiell. The Commission encourages intervenors and stakeholders to

continue to provide input throughout the EA process on the approaches and information sources that may be used to complete the defined scope of study.

Public Consultation:

With respect to the methods for public consultation during the conduct of the EA studies, the EQC South Central Subcommittee, in its intervention, stated that it understands the public role in the EA process and welcomes the opportunity to have direct input into the studies. The EQC noted that the planned identification of Valued Ecosystem Components (VECs) and the incorporation of traditional knowledge provide particularly good opportunities for public input.

With respect to consulting with the public on VECs in particular, the EQC South Central Subcommittee noted that this type of consultation has been occurring frequently over the past few years. The EQC suggested that, to reduce redundancies and the burden on the participants, a list of VECs relevant to uranium mining and milling in northern Saskatchewan could be updated once every 2 years. In response to a question from Commission on this suggestion, CNSC staff acknowledged that the idea may have merit and that it will consider this approach for future EAs in the area.

Follow-up Program:

With respect to the structure of the EA report, the EQC South Central Subcommittee recommended that the Commission require that a summary table be added to the completed Screening Report. The EQC suggested that the table identify the specific mitigation measures, the monitoring process and requirements, the agency responsible for ensuring the monitoring is completed, and the agency responsible for communicating this information to the affected parties.

In response to the Commission's questions to CNSC staff on whether such a table in the Screening Report would be possible and useful, CNSC staff responded that it would. CNSC staff suggested that the table could include specific information on each monitoring element, such as with respect to its purpose (i.e., to verify a predicted environmental effect or to determine the effectiveness of a mitigation measure) and the component of the environment involved.

With respect what agency(ies) is(are) responsible for ensuring the monitoring is completed and the results communicated to the affected parties, the Commission notes that the CNSC, as the responsible authority for the EA, will carry that responsibility, and that it may delegate specific tasks to other parties, including the licensee, pursuant to the delegation provisions under the CEAA. The Commission notes, however, that the follow-up program will focus only on the predicted incremental effects of the production increase project as defined in the EA Guidelines and that it is not intended to include the full scope of environmental and environmental effects monitoring for the overall McArthur River mine and Key Lake mill operations. These larger programs are required pursuant to CNSC licensing and other provincial permitting where applicable.

With that clarification, and based on the above recommendations, the Commission modifies section 9.2.9 of the EA Guidelines as follows:

The second sentence in the second paragraph is replaced with the following text:

“The follow-up program will be summarized in a table that identifies, for each monitoring element, the purpose of the monitoring (e.g., to verify predictions or to determine if a specific mitigation measure is effective) and the specific pathway or environmental component that is to be monitored (e.g., effluent, air emissions, Valued Ecosystem Component).

As the Responsible Authority for this environmental assessment, the CNSC would be the agency responsible for ensuring that the follow-up program is properly designed and implemented, and that the results are made available to the public. If the project is authorized to proceed, the Commission, using the delegation provisions under section 17 of the CEAA and its licensing and compliance programs under the *Nuclear Safety and Control Act*, would require that Cameco properly implement the follow-up program.”

Conclusion on the EA Structure and Approach:

Based on the above information and considerations, the Commission is satisfied that the structure, approach, and other instructions for conducting the environmental assessment, as described in the draft EA Guidelines attached to CMD 03-H23 and as modified by the Commission above, are acceptable.

The Commission requests that CNSC staff closely monitor the conduct of the studies to ensure that they are being carried out in accordance with the EA Guidelines.

4. Conclusion

The Commission has considered the information and submissions of the proponent, CNSC staff and the intervenors as presented for reference on the record for the hearing.

The Commission, pursuant to sections 15 and 16 of the CEAA, approves the *EA Guidelines (Scope of Project and Assessment), Environmental Assessment of Proposed Production Increase for the Key Lake Uranium Mill and McArthur River Mine* set out in Appendix A of CMD 04-H20, as modified by the Commission below.

The Commission makes the following changes to the draft EA Guidelines:

In section 9.2.1 under the heading “*Construction, Modifications and Normal Operations*”, the bullet which reads as “the source of drinking water for on-site workers” is modified to read as “the source of drinking and non-potable water for on-site workers”.

In the same section, the bullet which reads as “the sources and characteristics of any fire hazards” is modified to read as “the sources and characteristics of any fire and mine-flooding hazards”.

In section 9.2.9 under the heading “*Follow-Up Program*”, the second sentence in the second paragraph is replaced with the following text:

“The follow-up program will be summarized in a table that identifies, for each monitoring element, the purpose of the monitoring (e.g., to verify predictions or to determine if a specific mitigation measure is effective) and the specific pathway or environmental component that is to be monitored (e.g., effluent, air emissions, Valued Ecosystem Component).

As the Responsible Authority for this environmental assessment, the CNSC would be the agency responsible for ensuring that the follow-up program is properly designed and implemented, and that the results are made available to the public. If the project is authorized to proceed, the Commission, using the delegation provisions under section 17 of the CEEA and its licensing and compliance programs under the *Nuclear Safety and Control Act*, would require that Cameco properly implement the follow-up program.”

The Commission also concludes that, at this time, it will not request the federal Minister of the Environment to refer the project to a mediator or review panel in accordance with the provisions of the CEEA.

The Commission requests CNSC staff to report to the Commission on any issues arising during the conduct of the EA that could justify the Commission giving further consideration to a referral of the project to the Minister of the Environment, or to amending the scope of the project or factors to be included in the EA.

Marc A. Leblanc
Secretary,
Canadian Nuclear Safety Commission

Date of decision: September 15, 2004

Date of release of Reasons for Decision: November 1st, 2004

Appendix A – Intervenors

Intervenors	Document Number
Canadian Nuclear Workers Council and the United Steel Workers of America, Local 8914, represented by D. Telfer	CMD 04-H20.2 CMD 04-H20.2A
Northern Saskatchewan Environmental Quality Committee, South Central Subcommittee, represented by B. Woods	CMD 04-H20.3 CMD 04-H20.3A
M. Shiell	CMD 04-H20.4 CMD 04-H20.4A