

**Canadian Nuclear
Safety Commission**

**Commission canadienne de
sûreté nucléaire**

Public hearing

Audience publique

**Cameco Corporation and AREVA
Resources Canada Inc.:
Environmental Assessment Screening
report regarding Cameco Corporation
and Areva Resources Canada Inc.'s
Proposed Rabbit Lake Solution
Processing Plant**

**Cameco Corporation et AREVA
Resources Canada Inc.:
Rapport d'examen
environnemental préalable du
projet de Cameco Corporation et
D'Areva Resources
Canada Inc. concernant le
Traitement d'une solution
uranifère à Rabbit Lake**

June 11, 2008

Le 11 juin 2008

Public Hearing Room
14th floor
280 Slater Street
Ottawa, Ontario

Salle d'audiences publiques
14e étage
280, rue Slater
Ottawa (Ontario)

Commission Members present

Commissaires présents

Mr. Michael Binder
Mr. Alan Graham
Dr. Moyra McDill
Dr. Christopher Barnes
Mr. André Harvey
Dr. Ronald Barriault
Mr. Dan Tolgyesi

Mr. Michael Binder
Mr. Alan Graham
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M. Dan Tolgyesi

Secretary: Mr. Marc Leblanc

Secrétaire: Mr. Marc Leblanc

General Counsel :
Mr. Jacques Lavoie

Conseiller général :
Mr. Jacques Lavoie

1 --- Upon resuming at 6:46 p.m. /

2 L'audience est reprise à 18h46

3 **THE CHAIRMAN:** Okay. Here we are again.

4 The next item on the agenda is the
5 Environmental Assessment Screening Report regarding Cameco
6 Corporation and AREVA Resources Canada Inc.'s proposed
7 Rabbit Lake Solution Processing Project.

8 And I understand it's your turn.

9 **MR. LEBLANC:** Thank you.

10 So this is a one-day public hearing. The
11 Notice of Public Hearing 2008-H-09 was published on April
12 11, 2008.

13 The public was invited to participate by
14 oral presentation or written submission. May 12, 2008 was
15 the deadline set for filing by intervenors. The
16 Commission received one request by the Proponent and one
17 intervention from the Northern Saskatchewan Environmental
18 Quality Committee.

19 The Northern Saskatchewan EQC had asked for
20 an extension and this was allowed by a Panel of the
21 Commission to allow them to make a presentation today.

22 June 3rd was the deadline for filing of
23 supplementary information and such information has been
24 filed by the Proponents and CNSC staff.

1 **THE CHAIRMAN:** Okay. So Mr. Gitzel, I
2 understand you have a presentation to make.

3
4 **Cameco Corporation and**
5 **AREVA Resources Canada Inc.:**
6 **Environmental Assessment Screening**
7 **report regarding Cameco Corporation**
8 **and AREVA Resources Canada Inc.'s**
9 **Proposed Rabbit Lake Solution**
10 **Processing Plant**

11
12 **08-H13.1 / 08-H13.1A**
13 **Oral presentation by**
14 **Cameco Corporation and**
15 **AREVA Resources Canada Inc.**

16
17 **MR. GITZEL:** Thank you, Dr. Binder. For
18 the record, I am Tim Gitzel, Senior Vice President and
19 Chief Operating Officer with Cameco.

20 As this is a joint project with our
21 colleagues AREVA, we have representation from both
22 companies here tonight.

23 So I'll introduce beside me John Jarrell,
24 our Vice President, Safety, Health, Environment and
25 Quality. Beside him is Dr. John Rowsen with us tonight,

1 Vice President, Environment, Science and Technology from
2 AREVA.

3 Also here with us Mark Wittrup, Director,
4 Environmental Assessment; Glen White, Program Manager,
5 Environmental Assessment; Dave Rezansoff, who you just
6 met, General Manager of our Rabbit Lake Operation; Barry
7 Esford, Senior Hydrogeologist with our Mining Division;
8 Ken Gullen, our Director of Technical Services; Mo Balych,
9 Manager, Special Projects; Pat Landine, our Manager
10 Hydrogeology and Civil Engineering; Jean Alonso, Director,
11 Compliance and Licensing; and with us from SENES
12 Consultants is Bruce Halbert.

13 So I'll turn this over directly to John
14 Jarrell for his remarks concerning the Rabbit Lake
15 environmental assessment.

16 **MR. JARRELL:** Thank you, Jim. John
17 Jarrell, for the transcript record.

18 The JEB mill at the McLean Lake operation
19 has been previously assessed and approved for the
20 production of 24 million pounds U308 per year, including
21 the treatment of all Cigar Lake ore. Dr. Rowsen will
22 discuss the current approvals with a bit more detail later
23 in the presentation.

24 The series of red boxes and arrows is a
25 simplified representation of the processing steps at the

1 JEB mill. The project under current consideration, if
2 approved, will allow the processing of approximately one
3 half the uranium-rich solution, or URS, produced in the
4 JEB mill lead circuit to final concentrate at the Rabbit
5 Lake mill as represented in the blue boxes and arrows on
6 the right.

7 The acronym URS is used throughout our
8 presentation. This refers to the solution that results
9 from leaching of the high-grade Cigar Lake ore at McLean
10 Lake. It differs from current leach solution only in that
11 it has somewhat higher dissolved metal concentrations,
12 most notably arsenic and nickel.

13 Radiological characteristics and acidity
14 are similar to the leach solutions currently produced at
15 Rabbit Lake.

16 The proposal applies only for Cigar Lake
17 Phase I ore. We currently anticipate that the smaller
18 quantity of ore expected in the second phase of the Cigar
19 Lake mine development will be processed entirely at McLean
20 Lake.

21 The scope of the proposed project includes:
22 loading of URS into special haul trucks at McLean Lake;
23 transfer of that URS to Rabbit Lake, including completion
24 of a new haul road and construction of a clear span bridge
25 crossing over Collins Creek; and lastly, receiving URS at

1 Rabbit Lake, including an expansion of the existing In-Pit
2 Tailings Facility.

3 The project also includes equipment
4 upgrades and changes at Rabbit Lake to allow co-milling of
5 URS, along with conventional ores from the Rabbit Lake
6 site under a fulltime operating schedule.

7 With Cigar Lake, we are looking to increase
8 Northern Saskatchewan uranium production in response to
9 the increased world demand for uranium expected as part of
10 the nuclear renaissance.

11 We also wish to make better use of the
12 Rabbit Lake mill facilities, extending employment for a
13 stable well-trained workforce. We believe that the
14 effects of this additional future production are similar
15 to or less than in the past and are not significant.

16 Referring to the map on the left, the
17 Athabasca Sedimentary Basin hosts the Northern
18 Saskatchewan uranium mines, some of the highest grade ore
19 bodies found anywhere in the world.

20 The McLean Lake and Rabbit Lake operations
21 are indicated by the red stars on the map to the left.
22 Other current and former uranium mines and mills within
23 the basin are indicated by the black dots.

24 The white squares on the edge and outside
25 of the basin indicate impact communities associated with

1 these uranium operations. The enlarged area shown on the
2 upper right provides a closer look at the area including
3 the McLean Lake and Rabbit Lake mining facilities, as well
4 as the existing and proposed road systems that connect the
5 two.

6 The McLean Lake and Rabbit Lake site
7 surface leases are shown in the green and purple shaded
8 areas respectively. The brown lines are the existing road
9 system, including provincial Highway 905. The purple line
10 shows the 11 kilometres of new road which will connect the
11 existing road system to form the main 23-kilometre
12 transportation route for URS once constructed.

13 The McLean Lake JEB mill and JEB In-Pit
14 Tailings Facilities are labelled at the top of the McLean
15 Lake lease. The Rabbit Lake mill and In-Pit TMF are shown
16 in close proximity to each other in the lower left-hand
17 portion of the Rabbit Lake surface lease.

18 The Eagle Point mine is located at the end
19 of the road at the upper end of the Rabbit Lake lease.
20 The large blue area on the right side of the map is
21 Wollaston Lake. We have labelled on this map a number of
22 bays of Wollaston Lake in close proximity to the Rabbit
23 Lake surface lease.

24 For the purpose of this project, I would
25 like to point out Hidden Bay at the bottom of the diagram

1 and Pow Bay about halfway up.

2 We have also highlighted in blue the
3 immediate aquatic receiving environment for each of the
4 McLean Lake and Rabbit Lake operations. Collins Creek,
5 which receives all effluent from McLean Lake, is shown
6 leading off the lower portion of the McLean Lake surface
7 lease and flowing to Collins Bay at Wollaston Lake.

8 At Rabbit Lake, we have highlighted two
9 receiving environments; Horseshoe Creek which receives
10 treated mill effluent located at the bottom of that lease,
11 and the Link Lake system located downstream of the Rabbit
12 Lake TMF which receives groundwater flows, which is
13 potentially influenced by the TMF particularly during the
14 decommissioning phase.

15 The last feature I would like to point out
16 is the new stream crossing location at Collins Creek.

17 I will not turn over to -- things over to
18 John Rowsen to begin with the McLean Lake part of the
19 project.

20 **DR. ROWSEN:** John Rowsen, for the record.

21 Thanks, John.

22 As Mr. Jarrell previously noted, the Rabbit
23 Lake Solution Processing Project represents a partial
24 implementation of the originally assessed and approved
25 project at McLean Lake.

1 As such, all anticipated activities at the
2 McLean Lake operation had been the subject of previous
3 environmental assessments, with the exception of the
4 construction and operation of the load-out facility and
5 the implications of the solution load-out on mill
6 processes.

7 In this isometric drawing, the original
8 licensed facilities are depicted by buildings with dark
9 blue roofs. In 2006, the McLean Lake operating licence
10 was amended to allow construction of facilities to receive
11 and process Cigar Lake ore. This construction has now
12 been completed and is represented by the buildings with
13 the light blue roofs.

14 There is a small building with a dark green
15 roof identified by the circle in the drawing. That
16 indicates the location of the building where the solution
17 load-out facilities will be constructed.

18 The construction footprint of these
19 facilities falls entirely within and represents a small
20 fraction, approximately 0.4 percent of the mill terrace
21 area.

22 The principal implication to mill
23 processing from the transfer of uranium solution to Rabbit
24 Lake is that the liquid/solid ratio in the tailing's
25 neutralizing process at the McLean Lake operation is

1 altered. The operational effects of this activity are
2 minor changes to the granulometry and geochemical content
3 of the tailing solids.

4 These aspects were quantitatively evaluated
5 at the laboratory scale on tailing solids prepared from
6 two liquid/solid ratios; 9.4 cubic metres per tonne and
7 4.0 cubic metres per tonne. These represent bounding
8 cases for the liquid/solid ratio.

9 Potential long-term effects at the JEB TMF
10 are controlled by two passive parameters. One is
11 geotechnical and is represented by the hydraulic
12 conductivity of the tailing solids, and the other is
13 geochemical and is represented by the arsenic pore water
14 concentration.

15 The investigation concluded that there
16 would be no change in these key controlling parameter
17 predictions associated with tailings disposal as a result
18 of this project.

19 I will now turn the presentation back to
20 Mr. Jarrell.

21 **MR. JARRELL:** Thank you, John.

22 Following up on Dr. Rowsen's remarks on the
23 McLean Lake URS facility, I would note that the facilities
24 used to load and unload the URS solution will be similar
25 to those used to load and unload ore slurry transported

1 between McArthur River and the Key Lake operation.

2 The preferred alternative of a container
3 and truck system to transport the solution will be similar
4 to those used between McArthur River and Key Lake designed
5 to meet appropriate container design and transportation
6 requirements.

7 As I noted, the total haulage distance
8 between the McLean Lake and Rabbit Lake mills is 23
9 kilometres, 12 kilometres over an existing haul road and
10 11 kilometres of a new section. And as I pointed out on
11 the map, a section of this new route includes a bridge
12 over Collin's Creek. This crossing will use a free span
13 bridge to minimize environmental and navigable water
14 impacts.

15 Whereas the receiving facility allows the
16 processing of URS at Rabbit Lake, other modifications are
17 required to allow for continued processing of the Eagle
18 Point ore. An increase to the previously licensed
19 production limit of 6.5 million kilograms uranium per year
20 is also required, using a full-time operating schedule to
21 permit the co-milling of URS and conventional ores.

22 These other modifications include
23 converting tanks currently used for leaching ore to ones
24 used for URS ore storage, installation of a larger drying
25 circuit centrifuge and increased tailings disposal

1 capacity.

2 We should also point out that there are a
3 number of improvements being undertaken at Rabbit Lake
4 which are outside the scope of the project, including an
5 acid plant replacement, computer control system upgrades
6 and water treatment plant upgrades.

7 I would now like to provide a little more
8 detail on a couple of key items. The first is TMF
9 expansion needed to accommodate tailings from both URS
10 processing and from future Eagle Point activity. The TMF
11 capacity will be increased by pit crest expansion to
12 increase the final tailings elevation by five metres from
13 421 to 426 metres above sea level, including a lateral
14 expansion in an area northwest of the TMF, and an enhanced
15 thawing program for currently frozen tailings to increase
16 the rate of tailings consolidation.

17 I would like to point out two features on
18 this diagram. The yellow area shows tailings in the
19 existing main pit area as well as in the shower
20 expansionary to the left. The black and white pattern
21 area indicates volume that will be used to store some of
22 the waste rock which is currently situated around the TMF.

23 The proposed TMF capacity increase would
24 provide sufficient room for all of the waste that result
25 from the treatment of the designated quantity of URS to be

1 processed from the Cigar Lake Phase 1 ore as well as
2 tailings from Eagle Point ore expected to be mined through
3 2012.

4 In this recent picture of the TMF the
5 yellow lines on this picture project the final tailings
6 elevation at the end of the Eagle Point and URS co-milling
7 phases as well as the subsequent Cigar Lake solution
8 processing only phase.

9 Although it is difficult to show here the
10 pit crest expansion would be to an elevation one metre
11 higher than the upper yellow line in order to assure
12 continued safe containment of the tailings.

13 The till lake bottom sediments and the
14 small amount of sandstone that would be excavated during
15 the expansion will be stockpiled for future reclamation
16 purposes.

17 The second item I would like to draw a
18 connection to are the effluent improvement efforts which
19 are currently ongoing at Rabbit Lake and which were
20 discussed during the Day One Rabbit Lake licence renewal
21 hearing earlier today.

22 Although not part of this EA scoped
23 project, anticipated upgrades and effluent treatment
24 processes and technologies have been taken into account in
25 forecasting the expected effluent quality during the time

1 period of the proposed project.

2 As Dr. Rowsen indicated, decommissioning
3 changes at McLean Lake are minor essentially related to
4 the physical structures associated with loading URS. The
5 haul road and Collin's Creek Bridge will be decommissioned
6 at whatever point in the future they are no longer
7 required.

8 The project is expected to have little
9 impact on the overall decommissioning concept for the
10 Rabbit Lake operation, other than extending the life of
11 the operation and thus, delaying the decommissioning of
12 some facilities needed for ongoing operation.

13 One improvement relates to decommissioning
14 the Rabbit Lake drainage basin wherein we intend to place
15 more waste rock into the TMF than previously planned.
16 This is expected to reduce loadings to the receiving
17 environment in the long-term by removing formation of a
18 lake above the TMF. We intend to continue to decommission
19 facilities that are no longer required for this project
20 following plans currently in place. Timing of this work
21 is of some concern to our neighbours as expressed to us by
22 the EQC.

23 CNSC staff have recommended additional
24 planning work, as discussed earlier today, in the site re-
25 licensing Day One hearing.

1 We think the Rabbit Lake assessment process
2 was enhanced by the introduction of the orange coloured
3 steps shown here, which are in addition to the regular
4 assessment process represented by the blue boxes. This
5 additional effort permitted the early identification and
6 resolution of key issues and allowed us to establish
7 common expectations for assessment methodology criteria.

8 As a result, the majority of comments
9 received on the draft EIS submission related to points of
10 clarification. We believe that, to a large extent,
11 reviewers were able to read for confirmation, not for
12 discovery. Consequently, the time and effort to finalise
13 the EIS was reduced. We intend to formalize and adopt
14 these steps during future assessments, where appropriate.

15 We were also able to extend this effort to
16 include issues identified through consultation efforts
17 with our northern neighbours. The issues listed here were
18 identified through project-specific presentations and
19 information provided at regular EQC meetings, annual
20 community consultation tours and other routine methods of
21 sharing information. These issues were further discussed
22 and addressed in a two-day workshop held in March 2006;
23 the first day, in Stony Rapids and the second day, at the
24 Rabbit Lake operation. These workshops included EQC
25 members as well as elders, students and leaders from all

1 of the Athabaska communities. In order to allow for
2 better informed decisions and discussions, the workshop
3 content included training sessions on ecological risk
4 assessment, valued ecosystem components, tailings disposal
5 and URS transportation system considerations.

6 Again, we feel this to be a very beneficial
7 process and are adopting this approach for other projects
8 currently in the pre-feasibility stage.

9 The final topic I will touch on is the
10 Environmental Assessment Follow-Up Program intended to
11 verify key modelling assumptions and predictions providing
12 a vehicle to trigger corrective actions if monitoring
13 results are different and unexpected.

14 In the case of McLean Lake, we feel the
15 follow-up program already in place for the Sue E project
16 should be sufficient.

17 In the case of Rabbit Lake, the extensive
18 monitoring programs already in place will be supplemented
19 with specific follow up monitoring components to address
20 the potential but not significant adverse residual effects
21 associated with effluent discharge; and, of course, to
22 verify the key assumptions made that allow us to arrive at
23 this conclusion most notably in the areas of effluent and
24 tailings poor water quality.

25 In summary, we believe that the project has

1 been designed such that the environment will continue to
2 be protected and that no other significant risks exist
3 considering both, routine or malfunction and accident
4 conditions. This is further supported in that we believe
5 both Rabbit and McLean Lake have effective health, safety
6 environmental management and monitoring systems in place
7 to identify and respond to any unusual events that might
8 occur under the project. And finally, we believe that an
9 adequate follow up monitoring program has been proposed to
10 verify the conclusions of the EA.

11 As such, and subject to a positive EA
12 decision, we would respectfully request that the
13 Commission consider providing their EA decision on an
14 expedited basis, which would then allow the subsequent
15 approval process to proceed.

16 Pit crest expansion is important both for
17 future Eagle Point operations as well as for Cigar Lake
18 URS processing.

19 We make this supplementary request to take
20 full advantage of the short northern summer work season in
21 conducting the work to expand the TMF.

22 Additionally, an earlier start would
23 minimise the complexity of the pit crest construction
24 efforts required to achieve the necessary capacity
25 increase by completing the activity at the lowest possible

1 elevation of tailings in the current TMF.

2 We would also like to note that our written
3 CMD inaccurately assumed that a formal licence amendment
4 would be required to permit the pit crest expansion
5 portion of this project to proceed, not assumption of that
6 necessary -- of the necessary process.

7 As a final point on licensing, we do not
8 intend to request post-EA licensing action on the
9 remainder of the solution processing project at this time.
10 Rather, we will likely move forward with these actions
11 once we advance the Cigar Lake project further.

12 Thank you. We are prepared to answer any
13 questions.

14 **THE CHAIRMAN:** Thank you.

15 I would like to move now to a presentation
16 from CNSC and I understand that Dr. Thompson, the floor is
17 yours.

18

19 **08-H13**

20 **Oral presentation by**

21 **CNSC staff**

22

23 **DR. THOMPSON:** Thank you, Mr. President,
24 Members of the Commission. Mon nom est Patsy Thompson.
25 Je suis la directrice générale de la direction de

1 l'évaluation et de la protection de l'environnement et de la
2 radio-protection.

3 With me today, or this evening, are Mr.
4 Brian Torrie, the Director of the Environmental Assessment
5 Division; Mr. Michael Rinker, the environmental assessment
6 specialist for this environmental assessment; and a number
7 of licensing and specialist staff who provide the support
8 for this environmental assessment.

9 I will now pass the presentation to Mr.
10 Torrie to provide the context for this hearing.

11 **MR. TORRIE:** Thank you.

12 Good evening. My name is Brian Torrie.
13 I'm the Director of the Environmental Assessment Division.
14 Cameco Corporation and AREVA Resources
15 Incorporated have applied to the CNSC to send uranium rich
16 solution from AREVA's McLean Lake Mill to Cameco's Rabbit
17 Lake Mill for further processing.

18 In compliance with the requirements of the
19 *Canadian Environmental Assessment Act*, a screening
20 environmental assessment was conducted, resulting in the
21 screening report which is the subject of today's hearing.

22 CNSC staff's CMD 08-H13 summarizes the
23 findings of the EA and recommends that the Commission
24 approve the conclusions and recommendations of the
25 environmental assessment screening report and proceed with

1 a course of action consistent with paragraph 21(a) of the
2 *Canadian Environmental Assessment Act*.

3 In presenting the screening report this
4 evening, we will briefly outline Cameco's and AREVA's
5 proposal. We will review the environmental assessment
6 process as it applied to the project. We will discuss the
7 impacts identified in the environmental assessment and
8 whether or not the impacts were determined to be adverse
9 and significant.

10 We will describe the mitigation measures
11 that Cameco and AREVA have included as part of the
12 proposal. We will discuss follow-up considerations and
13 finally, we will reiterate the recommendations that have
14 been put forward in the CMD 08-H13.

15 The project proposal involves the
16 construction activities that would occur during
17 operations. A load outside would be constructed at the
18 McLean Lake Mill. A receiving facility would be
19 constructed at the Rabbit Lake Mill and a dedicated haul
20 route including a free-span bridge would be constructed
21 between the two mine sites.

22 The existing Rabbit Lake In-Pit Tailings
23 Facility would be expanded to accommodate the need for
24 additional tailings storage.

25 During operations, uranium rich solution

1 will be placed into trucks at the McLean Lake site,
2 transported to the Rabbit Lake site over the 23-kilometre
3 haul route and delivered to the Rabbit Lake site. The
4 uranium rich solution would be processed to yellow cake in
5 the Rabbit Lake Mill, together with conventional ore from
6 the Eagle Point mine located at Rabbit Lake. Solid waste
7 that would result from processing the uranium rich
8 solution would be managed in the expanded In-Pit Tailing
9 Facility at Rabbit Lake.

10 In terms of the EA requirements, the
11 proposed project is an undertaking in relation to a
12 physical work that would require authorization in the form
13 of licence amendments to both the Rabbit Lake and the
14 McLean Lake operating licences.

15 Therefore, the proposal is defined as a
16 project under section 2 of the CEAA and there is a trigger
17 under the lawless regulations of that Act. There are no
18 identified exclusions from environmental assessment for
19 the project pursuant to section 7 of the CEAA and Schedule
20 1 of the exclusion list regulations under that Act. The
21 project is not of a type identified in the Comprehensive
22 of Study List regulations either.

23 CNSC staff is not aware of any potential
24 environmental effects or public concerns associated with
25 the predicted environmental impacts of the project that

1 would warrant referral to a mediator or a review panel
2 pursuant to section 25 of the CEAA.

3 Therefore pursuant to subsection 18.1 of
4 the CEAA, CNSC is required to ensure the conduct of an
5 environmental screening assessment and the preparation of
6 a screening report before the proposed approval decision
7 can be made pursuant to the *Nuclear Safety and Control*
8 *Act*.

9 The CNSC and Transport Canada are the
10 federal responsible authorities for this assessment under
11 CEAA. Transport Canada is the responsible authority
12 because a permit would be required under the *Navigable*
13 *Waters Protection Act* for bridge construction.

14 Federal authorities for the assessment have
15 been identified pursuant to the federal coordination
16 regulations under CEAA. These federal authorities include
17 Environment Canada, Department of Fisheries and Oceans
18 Canada, Indian and Northern Affairs Canada, Health Canada,
19 and Natural Resources Canada. Cameco and AREVA are also
20 required to conduct an environmental assessment of the
21 project for the Minister of Environment for the Province
22 of Saskatchewan.

23 Under the Canada-Saskatchewan Agreement on
24 Environmental Assessment Cooperation, federal and
25 provincial environmental assessment processes are

1 coordinated for projects under joint federal-provincial
2 jurisdiction.

3 In accordance with the agreement, the
4 Environmental Assessment Branch of the Province of
5 Saskatchewan is the lead agency for this assessment.
6 Pursuant to subsection 12.41 of the CEAA, the Canadian
7 Environmental Assessment Agency is the federal
8 environmental assessment coordinator for this EA because
9 this environmental assessment is being conducted under
10 both federal and provincial jurisdiction.

11 In terms of the EA guidelines and keeping
12 with the Canada-Saskatchewan Agreement on Environmental
13 Assessment Cooperation, preparation of the EA guidelines
14 was coordinated with Saskatchewan Environment to ensure
15 that the requirement for both the federal and provincial
16 processes were identified and allowed to allow
17 coordination of subsequent reviews.

18 CNSC staff together with Saskatchewan
19 Environment solicited comments from the public during the
20 development of the project-specific guidelines. Only one
21 comment was received indicating support for the
22 guidelines.

23 EA guidelines were approved by the
24 Commission in December 2005 and subsequently issued to the
25 proponents by the Province of Saskatchewan in 2006. CNSC

1 delegated to Cameco and AREVA the completion of technical
2 studies to satisfy the requirements of the EA guidelines.

3 I would now ask Mr. Michael Rinker to
4 present the remainder of the presentation which will focus
5 on the EA screening report.

6 Thank you.

7 **MR. RINKER:** Good evening, Mr. President
8 and members of the Commission.

9 My name is Michael Rinker. I'm the
10 environmental assessment specialist on this file.

11 The subject of today's hearing is an
12 environmental assessment screening report. The process
13 for the development of the environmental assessment
14 screening report is as follows:

15 Cameco and AREVA provided technical studies
16 in the form of an environmental impact statement. The
17 environmental impact statement was reviewed by
18 Saskatchewan Environment, CNSC staff and Transport Canada
19 staff, as well as the Federal Authorities for this
20 assessment. Cameco and AREVA revised the EIS which was
21 accepted as the final version of the technical studies.

22 CNSC staff and Transport Canada drafted an
23 environmental assessment screening report based on the
24 information in the environmental impact statement. CNSC
25 staff together with Saskatchewan environment solicited

1 comments from the public on the draft screening report and
2 the environmental impact statement. CNSC staff then
3 submitted the screening report to the Commission for
4 presentation to the Commission today.

5 CNSC staff drafted the environmental
6 assessment screening report to document the process and
7 the results and conclusions that were obtained during the
8 environmental assessment process. The structure of the
9 screening report serves as a framework for explaining how
10 the assessment systematically considered the potential
11 environmental effects of the project.

12 A project description is provided to
13 identify the specific works and activities of the project
14 that have the potential to interact with the surrounding
15 environment during the construction, normal operations,
16 and during potential malfunctions and accidents.

17 Information about the existing environment
18 is provided to establish a baseline against which
19 environmental effects of the project works and activities
20 can be assessed.

21 The assessment of effects includes the
22 identification of potential interactions between the
23 project and the existing environment; the description of
24 the changes likely to occur as a result of the
25 interactions; the technically and economically feasible

1 mitigation measures that might be applied to each likely
2 effect and a determination of significance of any effects
3 remaining after the application of mitigation measures.

4 The screening report provides a
5 consideration of the effects of the project, together with
6 those of other projects and activities that have been or
7 would be carried out and for which the effects are
8 expected to overlap in the same geographic area and time.
9 These are referred to as cumulative effects of the
10 project.

11 The report includes a preliminary design
12 and implementation plan for follow-up and describes the
13 approach for further development of the follow-up program
14 should the projects be approved. The screening report
15 describes consultation activities described by -- or
16 undertaken by CNSC staff.

17 And finally, the screening report presents
18 the conclusions reached by CNSC staff and the resulting
19 recommendations.

20 The proposed project would be located at
21 the Rabbit Lake and McLean Lake operating mines located in
22 Northern Saskatchewan. The screening report describes the
23 existing environment according to seven environmental
24 components: atmospheric; hydrology and surface water;
25 geology and hydrogeology; aquatic; terrestrial; worker

1 health and public health.

2 The baseline conditions describe the
3 environment as it exists today at the facilities and
4 surrounding areas and provides baseline conditions that
5 form the foundation for the assessment.

6 All project activities were examined to
7 identify those activities that could possibly interact
8 with the environment.

9 Ten (10) potential project environment
10 interactions were identified at McLean Lake. Thirty-three
11 (33) potential project environmental interactions were
12 identified along the haul route and 45 potential project
13 environment interactions were identified at Rabbit Lake.

14 All of these potential interactions were
15 examined to determine if they would result in an
16 environmental effect.

17 Among the criteria used for this
18 examination were regulatory standards and guidelines,
19 scientific literature, and the experience of a technical
20 specialists.

21 Those effects that were determined to
22 result in measurable changes to the environment were
23 advanced to a detailed assessment, which included
24 consideration of the ability of Cameco's and AREVA's
25 planned mitigation measures to reduce, control or

1 eliminate adverse effects.

2 Among the planned mitigation measures were
3 the following: construction of a free-span bridge to
4 avoid damage to fish habitat and minimize navigable water
5 impacts; disposal of solid waste in a mined-out open pit;
6 radiation protection such as dust suppression, shielding,
7 cleaning of equipment, and operation and updating of a
8 water treatment facility.

9 The main project activities that could
10 result in measurable effects and were further considered
11 in the assessment to require mitigation measures included
12 construction activities at the McLean Lake Mill, the
13 Rabbit Lake Mill, the Rabbit Lake Tailings Management
14 Facility, and construction activities for the proposed
15 haul route; transportation along the proposed haul route;
16 emissions from the Rabbit Lake Mill and tailings
17 management at the Rabbit Lake site.

18 The likely measurable effects that could
19 result from the project activities in the previous slide
20 include: destruction of terrestrial habitat along the
21 haul route construction area and the area proposed for
22 expansion at the Rabbit Lake Tailings Facility; airborne
23 releases during construction -- airborne releases of
24 particulates and vehicle emissions during construction,
25 followed by deposition on terrestrial and aquatic

1 environments; worker exposures to radiation fields during
2 operations; emissions from the Rabbit Lake Mill to the
3 atmospheric environment and the aquatic environment with a
4 potential uptake by terrestrial and aquatic biota, and
5 emissions to groundwater from the Rabbit Lake Tailings
6 Facility followed by seepage to surface water bodies over
7 time and uptake by aquatic biota.

8 In considering the effects of the
9 environment on the project, CNSC staff considered the
10 effects of extreme weather conditions such as temperature
11 and precipitation, seismic events and changes in climatic
12 conditions.

13 Design features and operational measures to
14 reduce potential effects have been considered in the
15 assessment.

16 Furthermore, the probabilities of
17 occurrence of such events were assessed to be low, as
18 outlined in the screening report.

19 Therefore, there are no adverse effects of
20 the environment on the project that are considered likely
21 that cannot be mitigated.

22 Cumulative effects are the effects on the
23 environment, which result from the effects of the proposed
24 project when combined with those of other past, existing
25 and future projects and activities such as ongoing mining

1 and milling at the Rabbit Lake and McLean Lake sites and
2 future developments at those mines.

3 All other known mines and industrial
4 activities are located beyond the reach of predicted
5 effects of the proposed project.

6 The McLean Lake Environmental Monitoring
7 Program indicates that there are no overlaps of emissions
8 from the McLean Lake and Rabbit Lake operation.
9 Nevertheless, a cumulative assessment was conducted by
10 summing the maximum loading from all possible emissions
11 from the Rabbit Lake site and McLean Lake site.

12 The result of this cumulative effects
13 assessment indicated that there would be no adverse
14 effects of the environment on the project that are
15 considered likely that cannot be mitigated.

16 Potential malfunction and accident
17 scenarios were considered in terms of their potential
18 effects of the project on the environment. Some of the
19 accident scenarios that were assessed included fires,
20 spills, leaks and loss of service events.

21 The most important consequence of these
22 events would be a spill of uranium-rich solution at the
23 McLean Lake or Rabbit Lake site, which could be mitigated
24 by the existing design of the McLean Lake facility or the
25 new receiving facility at Rabbit Lake.

1 An additional event would be a spill along
2 the haul route, specifically on the newly-constructed
3 bridge. This scenario would be mitigated by design
4 controls for the road or bridge, safety measures at bridge
5 crossings, and procedural controls along the haul route.

6 With these mitigation measures, any adverse
7 effects are limited in magnitude and geographic extent and
8 clean-up measures are available to ensure that any adverse
9 environmental effects are largely reversible.

10 Therefore, the screening report concludes
11 that the residual adverse environmental effects from
12 accident and malfunctions are not significant.

13 As a responsible authority for the project,
14 the CNSC has the obligation to ensure that a follow-up
15 program is designed and implemented. The objectives of a
16 follow-up program are to confirm the results of the
17 environmental assessment and to assess the performance of
18 the planned mitigation measures.

19 The mechanism for ensuring the
20 implementation of the follow-up program is the CNSC
21 Licensing and Compliance Program.

22 The follow-up program would include
23 monitoring of effluent quality from the Rabbit Lake Mill
24 to ensure accuracy of the predicted performance of the
25 water treatment plant.

1 The follow-up program would also include
2 investigations of the concentration of arsenic in the
3 tailings in the Rabbit Lake in-pit tailings facility.

4 Follow-up monitoring would be conducted on
5 aquatic plants and Benthic Invertebrates located in the
6 local receiving surface water bodies to verify or update
7 the models that were used for predictions.

8 Follow-up monitoring would also be
9 conducted on water fowl and muskrat to compare predictions
10 with measured constituent levels in those animals.

11 Public consultation activities were
12 implemented to ensure that the public is provided with the
13 information required to understand the environmental
14 assessment of the project and to provide comment on the
15 findings presented in the screening report.

16 The public consultation activities were led
17 by the Province of Saskatchewan but shared by CNSC staff
18 and Transport Canada.

19 In addition, the proponents were required
20 to engage the public about their project. The primary
21 documents for this assessment that were made available to
22 the public include: the Project-Specific Guidelines; the
23 Environmental Impact Statement that represents the
24 technical studies; the Executive Summary of the assessment
25 representing the proponent's summary of their

1 environmental impact assessment and the Draft
2 Environmental Assessment Screening Report that represents
3 the federal document that is the subject to today's
4 hearing.

5 These documents were made available in
6 public libraries located in Saskatoon, Regina, Prince
7 Albert and La Ronge. The documents were also provided
8 directly to several northern hamlets, First Nations and
9 interest groups.

10 In addition to direct mailing and internet
11 notification, comments were invited by way of radio
12 broadcast in Cree, English and Dene, and public notice
13 advertisements were placed in the Saskatoon Star Phoenix,
14 the Prince Albert Daily Herald and the La Ronge
15 Northerner.

16 Cameco and AREVA also distributed an
17 Executive Summary of the EIS in English. Oral
18 transcription of this Executive Summary was distributed in
19 Dene and Cree.

20 One comment was received in support of the
21 Environmental Assessment Guidelines and one comment was
22 received concerning the length of time made available for
23 public review of the environmental assessment information.

24 Transport Canada made their environmental
25 assessment decision in April of 2008. Their decision was

1 to accept the Environmental Assessment Screening Report
2 and to conclude that the project is not likely to cause
3 significant adverse environmental effects, taking into
4 account mitigation measures.

5 The Province of Saskatchewan has not made a
6 decision on this project. The provincial staff have
7 recommended to the Provincial Minister of the Environment
8 that the technical assessment is complete and
9 satisfactory. However, the Saskatchewan Minister of
10 Environment has not made his decision.

11 CNSC staff have reviewed the environmental
12 assessment documentation, including the proposed
13 mitigation measures. On the basis of this review, CNSC
14 staff concludes that the proposed project, taking into
15 account the mitigation measures, is not likely to cause
16 significant adverse environmental effects. CNSC staff
17 recommends that the Commission accept this conclusion and
18 proceed with a course of action consistent with paragraph
19 21 A of the *Canadian Environmental Assessment Act*.

20 That course of action would be
21 consideration by the Commission under the *Nuclear and*
22 *Safety Control Act* of the applications by AREVA and
23 Cameco.

24 **DR. THOMPSON:** Mr. President, this ends the
25 staff's presentation.

1 We're available to answer questions.

2 **THE CHAIRMAN:** Thank you.

3 At this time we're scheduled a presentation
4 from Northern, Saskatchewan and Environmental Quality
5 Committee as outlined in CMD 08 H-13.2.

6 However, please note that Ms. Vina Powder
7 from NSEQC is not available today. And thank you for
8 Betty Hutchinson who is here to -- she is Manager from
9 Northern Mine Monitoring Secretariat and she will make the
10 presentation on behalf of the Northern Saskatchewan
11 Environmental Quality Committee. The floor is yours.

12

13 **08-H13.2**

14 **Oral Presentation by**

15 **Northern Saskatchewan**

16 **Environmental Quality Committee**

17

18 **MS. HUTCHINSON:** Thank you.

19 Good Evening Mr. President and Members of
20 the Commission.

21 As mentioned earlier, Vina Powder is unable
22 to be with us this evening. She and her family were
23 evacuated from the community of Uranium City earlier this
24 week and -- she was unable to make Commission -- make
25 travel arrangements to get here and I'm sure she had other

1 priorities facing her at the moment.

2 I would like to wish Vina and her family a
3 safe and speedy return to her home.

4 Before proceeding, I would like to re-
5 iterate that this presentation is on behalf of the NSEQC.
6 It is not intended to represent the position of the
7 Provincial Government.

8 To carry on with the presentation. Our
9 comments are result of information that we have received
10 primarily from Cameco Corporation as well as our own
11 familiarity with the site during its 33 years of
12 operation.

13 First of all, I would like to say that we
14 are glad that the life of the Rabbit Lake Mill is to be
15 extended. Several of my EQC colleagues are employed
16 there. However, our concern for the environment is very
17 important.

18 Rabbit Lake has now been operating for over
19 30 years. The project was originally intended to last
20 only a fraction of that time.

21 Each time a new development is considered
22 for the site, mine personnel and regulators come to
23 Northern Saskatchewan. Sometimes we understand what is
24 being proposed but we may not fully understand all the
25 implications of the project. For that we rely upon the

1 scientists from the Canadian Nuclear Safety Commission and
2 from the Saskatchewan Ministry of the Environment to
3 provide us with good advice.

4 We hope that you take this role very
5 seriously. Well, we understand that the proposed project
6 includes modifications that would service the existing
7 Rabbit Lake operation. We understand the primary purpose
8 of the proposal was to allow the milling of Cigar Lake ore
9 at Rabbit Lake.

10 Since Cigar Lake has been further delayed,
11 we are surprised that the project has been advanced. We
12 wanted to make sure that there is a real need for this
13 project before the construction work begins; particularly
14 the road from McLean Lake to Rabbit Lake. At a recent
15 community meeting, we stressed the importance of carefully
16 locating the bridge over at Collin's Creek to minimize any
17 impact it may have on the creek and our traditional way of
18 life.

19 In the earlier discussions on this project
20 we mentioned the importance of cleaning the site as worked
21 progressed. At our most recent meeting at Rabbit Lake we
22 had stressed the importance of decommissioning all unused
23 facilities and infrastructure on the site.

24 While this environmental assessment does
25 not -- does address ultimate decommissioning, we would

1 like to encourage decommissioning on an ongoing basis
2 rather than something that is only done at the end.

3 We realize that this will require the CNSC
4 to reconsider the activities that can be conducted under
5 an operating licence. We want to make sure that the site
6 can be restored before Cameco is done working there.

7 In conclusion, we do believe the
8 environment has been considered in the design of this
9 project and that it will have no significant effects.

10 We would like to encourage the licensing
11 and practice of continual decommissioning of this site.
12 Further, we would discourage the construction of offsite
13 infrastructure such as a connecting road until it is
14 actually required.

15 Thank you.

16 **THE CHAIRMAN:** Thank you.

17 So let's jump right into the question from
18 the Commissioners and starting with Mr. Harvey.

19 **MEMBER HARVEY:** Merci Monsieur le
20 Président.

21 On page 5 of the Cameco submission, at the
22 bottom of the page, you can see all those URS and
23 consequently the contaminated waters stream feeding the
24 water treatment plant where it contains a higher level of
25 arsenic and nickel than currently observed with Eagle

1 Point ore. Extensive laboratory testing has shown that no
2 significant changes will be required to the treatment
3 system to produce effluent of similar quality than that
4 observed today.

5 On page 6, I can read the environmental
6 assessment conducted took these changes and their effects
7 on effluent discharge into account in the prediction of
8 the project effects. We can find about the same --
9 statement in H-13 in the staff submission page 5.

10 Cameco is currently implementing a program
11 to reduce uranium concentrations in effluent and intends
12 to implement modifications to the effluent treatment
13 process to further reduce concentration of molybdenum and
14 selenium.

15 And finally in page 19, the quality of
16 effluent from the Rabbit Lake Mill during the URS Project
17 was predicted based on the combination of past effluent
18 monitoring data and the estimated performance of the
19 upgraded effluent treatment system.

20 I will ask both the staff and Cameco to --
21 to respond to -- or to elaborate on that. And because you
22 are starting from extensive laboratory testing and will
23 the result -- to what extent you are confident that the
24 results obtained in laboratory will conduct to the similar
25 results in the field. So, I will recall your comments.

1 Because they -- the result of the evaluation is based on
2 that in part -- I should say, partly based on that.

3 **DR. THOMPSON:** Patsy Thompson for the
4 record.

5 There are a number of elements to -- to the
6 staff's response. In terms of the performance of the --
7 some modifications to the effluent treatment we do have
8 performance information in terms of the amount of uranium
9 that has been removed in effluent and this gives us a
10 level of confidence in terms of the estimated source
11 terms.

12 One of the things with the environmental
13 assessment is that it is a planning tool. We're making
14 assumptions on mitigation measures. There is a
15 requirement on the Commission to ensure that those
16 mitigation measures are -- will be implemented before the
17 project can go ahead.

18 This is something that we would recommend
19 if the Commission makes a positive decision that it be
20 captured in the licensing and compliance programme moving
21 forward.

22 There is also in Chapter 10 the requirement
23 for a follow-up programme and this is one of the elements
24 for the follow-up programme where there will be a
25 verification of performance.

1 So right now it's a best assessment, best
2 estimate based on our knowledge of existing performance --
3 performance that has been seen at McLean Lake for example
4 and Key Lake for similar constituents.

5 **MEMBER HARVEY:** Thank you.

6 Could Cameco comment?

7 **MR. JARRELL:** John Jarrell for the record.

8 I'll ask Glen White to provide a little bit
9 of the detail of as to how we actually got the numbers and
10 the EIS.

11 But what I would say initially is the
12 numbers that we get for uranium are largely based on
13 experience as we discussed at the previous Rabbit Lake
14 hearing. We've implemented that solution and it's seen
15 significant drops in uranium.

16 As far as the treatment for arsenic and
17 nickel that's based on some well-known and well-applied
18 chemical equilibrium technology based on iron
19 precipitation. Largely a PH control so there's been
20 experience at a plant scale level with that.

21 With respect to molybdenum and selenium, we
22 discussed that again at the Day 1 Hearing. We're in sort
23 of in process there but I would also add that I think Dr.
24 Rowson could offer something on that insofar as it's the
25 basic same chemistry that's being applied at McLean Lake.

1 As far as the reverse osmosis aspect of
2 this -- this is currently at the pilot scale operation.

3 We've had quite a bit of experience with
4 reverse osmosis at Key Lake and in our U.S. operations, so
5 there's some experience base with that as well. So when
6 we put that all together we came up with the overall mix
7 of an estimate.

8 I would go back to an earlier comment I
9 made as well, and that relates to the fact that one of the
10 advantages of these ecological risk modelling is it allows
11 you to, in effect, sort of reverse engineer what kind of
12 requirements you need for an effluent treatment.

13 And it was a bit of that process as well in
14 this EA, so I'll ask Glen just to give a little bit more
15 detail on that.

16 **MR. WHITE:** Thank you, John.

17 Glen White for the record.

18 I would echo the comments that you've heard
19 so far. We went through the process of predicting
20 effluent quality, looking at what the effects of that
21 effluent quality were in the receiving environment, I
22 guess in the first instance judging that that was
23 something that we wanted to improve on and that we had the
24 capability to improve on based on both the current
25 programs for effluent improvement that are going on under

1 the uranium and effluent program that you heard earlier
2 about today.

3 We also, I guess, had a look at other
4 technologies, which John referred to, the reverse osmosis
5 or membrane technologies that are used at our other sites,
6 and have looked to that to build confidence in the
7 effluent predictions that we were able to make within this
8 assessment.

9 And as was already pointed out, we are
10 confident in our ability to meet that effluent quality,
11 but there is the follow-up program associated with the
12 environmental assessment that will have us look at those
13 predictions and the performance that we're predicting and
14 ensuring that that's there and apply mitigation, if
15 necessary.

16 **THE CHAIRMAN:** Okay. Thank you.

17 Dr. McDill.

18 **MEMBER MCDILL:** Thank you.

19 My first question is with respect to
20 timeline. I realize you can't put sort of a dated month-
21 by-month in, but as I couldn't see a timeline, maybe you
22 can just give me a sort of quarter-by-quarter sort of
23 approach.

24 I know that the frozen layer is, I think,
25 being done under the current licence, but then when -- and

1 you want to start the pit crest modification soon. When
2 do you expect the road, for example, would go in?

3 **MR. JARRELL:** John Jarrell, for the record.

4 Again I'll ask Glen to confirm this, but
5 essentially the piece of this that we're looking for is a
6 licensing decision following the environmental assessment
7 really focuses on the in-pit tailings facilities you
8 pointed out.

9 As far as the road goes, I think our belief
10 on this is that we would think it perhaps prudent to see
11 further advancement on the Cigar Lake project before we'd
12 undertake that project.

13 **MEMBER MCDILL:** And what about some of the
14 equipment to move your containers around, put them into
15 the facility?

16 **MR. JARRELL:** John Jarrell, for the record.

17 Yes, that again is tied, I think, into the
18 progress for Cigar Lake itself.

19 **MEMBER MCDILL:** Thank you.

20 Two more questions. With respect to the
21 free-span bridge, it may be early in the game yet, but how
22 do you expect to pick a contractor for that and how would
23 they be certified? How would you get the free-span bridge
24 there, presumably along your own roads?

25 **MR. JARRELL:** This one I definitely will

1 ask Glen White for his opinion on this.

2 I know from an environmental design point
3 of view we're obviously looking for a narrow part of the
4 creek itself as well as reasonable access. So it's a good
5 location. There's not twists and turns. But the actual
6 sort of thought that's gone into how we would actually
7 construct that, I'll defer that to Glen White.

8 **MR. WHITE:** Thanks, John.

9 I won't pretend to be an expert in the
10 selection of a road contractor. I would offer a broad
11 statement that some of the quality procedures that we
12 heard about during the licensing process earlier today
13 would come into play in selecting that contractor.

14 The comment I would offer from -- comes out
15 of the consultation processes that we went on in a recent
16 meeting that we had with the EQC in Wollaston Lake on
17 April 29th. In those discussions, the group as a whole
18 indicated that there was some traditional knowledge that
19 we could apply in the design, specifically in locating
20 that bridge, and that would come from the local trapper.
21 So we agreed to include that trapper in the process of
22 finalizing the design location for that bridge.

23 **MEMBER McDILL:** Perhaps I could ask the
24 intervenor who is representing the group if the answer
25 with respect to the road is satisfactory and also with

1 respect to the bridge?

2 **MS. HUTCHINSON:** I can actually only
3 respond based on the conversations in Wollaskon. At that
4 time the community appeared to be satisfied with the idea
5 of the trapper assisting in the appropriate location of
6 the road to minimize any destruction to traditional
7 lifestyle.

8 **MEMBER McDILL:** And the statement that the
9 bridge would be -- or the road would be waiting for
10 further developments at Cigar Lake?

11 **MS. HUTCHINSON:** That the road wouldn't be
12 constructed until there was actually something to haul on
13 it.

14 **MEMBER McDILL:** I think that's what Cameco
15 said.

16 Could I ask staff if they're satisfied with
17 the proposals for developing the long-haul road with
18 respect to the environment and other ---

19 **DR. THOMPSON:** Patsy Thompson.

20 I'll ask Mr. Mike Rinker to respond.

21 **MR. RINKER:** Mike Rinker, for the record.

22 The environmental effects of road
23 construction were assessed and are satisfactory. So all
24 the staff are satisfied with the manner in which Cameco is
25 addressing the concerns of the trapper. And we

1 acknowledge Cameco's statement today that they would not
2 embark on constructing the road until there would be a
3 need for it, which is a concern with the environmental
4 quality committees.

5 **MEMBER McDILL:** Thank you, Mr. Chair.

6 **THE CHAIRMAN:** Thank you.

7 Dr. Barnes.

8 **MEMBER BARNES:** Yes, the document
9 identifies about three main areas for principal concern.
10 One is the road and I think Dr. McDill has asked the kind
11 of questions I had.

12 The other is the potential contamination
13 that might come, I think, from the tailings on the
14 material put into there. And what's shown on this is the
15 expansion, the 20 percent increase in capacity, the pit
16 crest increase by five metres.

17 But I wonder why there wasn't -- I'm
18 looking at the map cross-section on page 28. Did you give
19 a map showing the sort of map view as opposed to a cross-
20 sectional view here so we could really see the lateral
21 extent of this in a geographic way?

22 **MR. JARRELL:** John Jarrell, for the record.

23 It's certainly, as you point out, not on
24 the screening report. I'll ask Glen White if there's a
25 reference to that that he could find quickly on the actual

1 -- on the impact statements.

2 **MR. WHITE:** There is a drawing that we can
3 provide for that. It will take us a second or two to dig
4 it up.

5 **MEMBER BARNES:** Let me just keep going on
6 the cross-section. Because basically you're raising the
7 height of the tailings pond so that particularly on the
8 left-hand side of this, you then move the extent of it
9 where it says "pit expansion area" and that interfaces
10 with the overburden and is slightly above interval of
11 sandstone which, in turn, is above an interval of
12 weathered bedrock.

13 Could you just remind us what systems are
14 in place to prevent the lateral flow of contaminants from
15 this TMF out over that lip, if you like, of the main area
16 into -- and laterally out into the sandstone or bedrock?

17 **MR. JARRELL:** John Jarrell, for the record.
18 I'll ask Barry Esford, that -- who was involved in the
19 assessment of this tailings option, to answer your
20 question.

21 **MR. ESFORD:** Barry Esford, for the record.

22 So just to I guess reiterate your question,
23 you're wondering what is in place to control the movement
24 of water.

25 I guess there's two phases we can talk to;

1 there's an operating phase and there's a decommissioning
2 phase. During the operating phase, the -- we operate the
3 pervious surround that -- you see that surrounds the
4 tailings, that layer is kept dewatered. We keep it
5 operated at -- with the water level around 310 metres
6 above sea level. You can see the scale on the side here.
7 So it's basically operated with the water level around the
8 top of that base drain.

9 And that's the main controlling factor,
10 here that controls the groundwater flow surrounding the
11 TMF and that's, again, when we come back to the mill,
12 that's what was drawing the water towards the TMF. It's
13 that same gradient that ensures that we capture our
14 process water during the operating phase.

15 During the decommissioning phase, that
16 pervious surround has a different purpose; it essentially
17 forms a permeable layer that surrounds, entirely surrounds
18 the tailings mass. And it allows the groundwater to
19 bypass the tailings through that more permeable layer.

20 **MEMBER BARNES:** It's getting late, so I'm
21 not -- I just don't understand why you wouldn't provide
22 some maps in showing the groundwater controls, wells in
23 here for something like this. This is -- I don't know, 30
24 pages of material and is probably around two critical
25 areas here, right? One is the potential for leakage from

1 the tailings pond facility.

2 And so I'm just trying to -- in the two
3 areas at the top, here, what is the potential for water
4 coming out of the -- contaminated water coming out?

5 You have other wells that have a cone in
6 here, do you? A larger one, or not?

7 **MR. ESFORD:** Barry Esford, for the record.

8 So you -- just to clarify, you're referring
9 to the probability of groundwater being contaminated
10 during the operating phase?

11 **MEMBER BARNES:** Either.

12 **MR. ESFORD:** To speak to the operating
13 phase, first of all, we come back to it; it's operated so
14 that the water level is low in the pit.

15 So the groundwater is flowing into the pit,
16 and so there's really no potential for process water
17 during the operating phase to leave that facility. The
18 water level -- where we keep the water level, the
19 elevation is well below the surrounding groundwater.
20 There's a capture zone there that we might identify within
21 the EIS document, certainly

22 **MEMBER BARNES:** So, if I could stop you
23 there for a minute, so groundwater in the weathered
24 bedrock we see -- I have to point here ---

25 **MR. ESFORD:** Yes.

1 **MEMBER BARNES:** --- and the overlying
2 sandstone, that that's -- the way that's transported into
3 the pit is through wells, is that right?

4 Because, don't you have a relatively
5 impervious barrier between the contact between those
6 stratigraphic units and the contents of the pit?

7 **MR. ESFORD:** Barry Esford, for the record.

8 That's actually a permeable layer. What we
9 have is against a pit wall, we place coarse rock. And
10 then there's a -- between the rock layer and the sand
11 layer, or between the rock layer and the tailings is a
12 sand layer which acts as a filter to keep the tailings out
13 of the rock layer.

14 **MEMBER BARNES:** Okay.

15 **MR. ESFORD:** So that is a permeable layer,
16 not impermeable.

17 **MEMBER BARNES:** Okay, got you.

18 Thanks.

19 If I could turn to page 63 -- that was
20 Table 7.1. That's a cumulative assessment for Wollaston
21 Lake water quality and the percent increase change from
22 baseline for all projects shows variances for 41 percent
23 for arsenic up to 871 percent for Molybdenum.

24 And do you want to comment on what those
25 percentages mean, in terms of concerns we might have for

1 long-term environment and concern of people on Wollaston
2 Lake, water quality?

3 **MR. JARRELL:** John Jarrell, for the record.

4 I'll ask Bruce Halbert to give you the
5 details. He did the assessment on this. I think the
6 other critical thing to be clear on is what, exactly, the
7 baseline is that we're referencing ---

8 **MEMBER BARNES:** Right.

9 **MR. JARRELL:** --- this to.

10 **MR. HALBERT:** Bruce Halbert, for the
11 record.

12 The information shown on this particular
13 table, starting towards the left-hand side shows the
14 incremental water concentrations, due to their -- to each
15 of the projects. The first being the Rabbit Lake facility
16 and the particulate change here is .007 micrograms per
17 litre, which is a very small number.

18 Baseline by comparison, is adjacent to
19 that. And that's the .1 microgram per litre.

20 Moving laterally across, the effect on --
21 of the Cones Bay facilities from a previous assessment was
22 determined to be .009 micrograms per litre, again a very
23 small number.

24 And activities at McLean Lake which drains
25 through the Collins Creek system into Wollaston Lake, have

1 been predicted to increase the arsenic level by .026.

2 So the overall aggregate you see, that
3 baseline changes from .01 micrograms per litre to .107, so
4 it's a very small change and the .01 microgram per litre
5 of arsenic is a quite low number in itself.

6 The Saskatchewan Surface Water Quality
7 Guideline or objective is 5 micrograms per litre and the
8 Canadian Environmental Quality Guideline for fresh water
9 aquatic life protection is also 5 micrograms per litre.

10 So the change is small, and the
11 significance of the change is very small.

12 **MEMBER BARNES:** And this cumulative
13 assessment is over what period?

14 **MR. HALBERT:** What we did in this
15 particular case is took the maximum predicted effects from
16 each of the operations, independent of the time frame, and
17 added those together. So they may not exactly coincide
18 with each other but they are the maximum contributions
19 from each of the relative projects.

20 **MEMBER BARNES:** So it's roughly going at,
21 say, within the next 15 years or so?

22 **MR. HALBERT:** Yes, 15, 20 years.

23 **MEMBER BARNES:** Okay. And I assume staff
24 have no concern on these numbers?

25 **DR. THOMPSON:** Patsy Thompson for the

1 record.

2 No, the assessment is as just been
3 described. The concentrations, although they increase
4 over that assessment, still remain well below any
5 guidelines that have been established to protect aquatic
6 life.

7 **THE CHAIRMAN:** Well, I'm glad you
8 understand that. I am totally lost, now.

9 Can somebody explain to me, is base -- what
10 is the baseline? And what -- every time you look at
11 increases of the order of 871 percent, please explain, in
12 layman language, what are we measuring? Not only
13 environmentally, so we'll read this -- some laypeople will
14 try to read it -- please explain to me. What is it that
15 we are measuring here?

16 **DR. THOMPSON:** Patsy Thompson for the
17 record.

18 Essentially, what is done is the baseline
19 information represents the current levels of environmental
20 contaminants in Wollaston Lake, as they are measured
21 today.

22 Then, an assessment was done of what
23 today's projects plus those under consideration, in this
24 environmental assessment and future projects could
25 contribute in terms of contaminants to Wollaston Lake.

1 All of these contributions have been added
2 and compared to existing water quality today.

3 So also ---

4 **THE CHAIRMAN:** So I can understand -- so if
5 Molybdenum went from .5 to 4.86, increase of 871 percent,
6 I shouldn't worry about it because 4.86 is not a big
7 number? Is that what it means?

8 **DR. THOMPSON:** Patsy Thompson for the
9 record.

10 That's what it means -- I think ---

11 **THE CHAIRMAN:** But they are -- measure it
12 against what?

13 **DR. THOMPSON:** I think for clarity what we
14 should have done is to put it in an additional column
15 representing water quality objectives that have been
16 established, based on toxicity information, that indicate
17 levels at which we see no effects.

18 **THE CHAIRMAN:** Are there such numbers?

19 **DR. THOMPSON:** Yes, there are.

20 **THE CHAIRMAN:** We were told today sometimes
21 that they're not by some of our colleagues sitting right
22 there.

23 **DR. THOMPSON:** My understanding is that
24 what was -- the statements that were made are that there
25 are no limits in regulations for effluent.

1 What has been done is through the Canadian
2 Councils of Ministers of Environment and various provinces
3 are committees reviewing toxicity information and
4 establishing levels in receiving environments that are
5 protective of living organisms. Those are the values we
6 use for comparison.

7 **THE CHAIRMAN:** My strong advice is
8 somewhere along the line you have to explain this. Nobody
9 outside this room and many inside this room don't
10 understand this.

11 **DR. THOMPSON:** Your point is noted.

12 **MEMBER BARNES:** If I could just follow up
13 then just to push it a final inch or two.

14 When you are taking the whole Wollaston
15 Lake, obviously there is an enormous dilution there, right
16 -- nevertheless 871 per cent did seem to be a little on
17 the large side, but if you were to take this contamination
18 down the river systems into those coastal areas where
19 those rivers spill out into Wollaston Lake, what would
20 those numbers be in that sort of area of that coastline as
21 opposed to the total volume of Wollaston Lake when you
22 have a significant dilution? Is that something that one
23 should be concerned about for communities doing their
24 fishing in those areas?

25 **DR. THOMPSON:** Patsy Thompson for the

1 record.

2 Two elements. I'll ask Mr. Rinker to
3 provide that context in terms of the different sources and
4 also -- I will let him go.

5 **MR. RINKER:** Mike Rinker for the record.

6 This is an assessment of the cumulative
7 effects of many different projects and the release points
8 to Wollaston Lake are not at the same location. There are
9 release points from the tailings that appear that
10 accumulate along sediments from that discharge area, but
11 the release point from effluent from Rabbit Lake mill is
12 somewhere else. The release point from those projects and
13 future projects at McLean Lake, et cetera, are from other
14 places. The mixing point where they actually accumulate
15 is indeed Wollaston Lake. They don't accumulate along a
16 shoreline.

17 **MEMBER BARNES:** Okay. This is a joint
18 effort between Cameco and AREVA. There is nothing I think
19 in the document that spelled out the nature of this joint
20 venture. Was that done somewhere else, the decision-
21 making roles, the investment roles and so on in this
22 activity?

23 **MR. GITZEL:** Tim Gitzel for the record.

24 Dr. Barnes, I could speak to that having
25 worked for both sides of the party on this one at some

1 point.

2 This is a deal that was worked out -- it
3 was over a five-year period of negotiations between the
4 two companies when Cigar Lake looked like it would go
5 forward. The two companies got together and I think the
6 decision was taken that there were already two mills
7 tailings areas in the area, McLean Lake and Rabbit Lake,
8 and that using existing facilities would be wiser from an
9 environmental point of view I think and economic as well
10 than building a new facility at Cigar Lake.

11 So the two partners got together and had
12 legal, economic and environmental discussions over the
13 years and this is the culmination of those negotiations,
14 that this was the best solution for all of the partners.
15 There are Japanese partners as well in the Cigar Lake
16 joint venture.

17 **MEMBER BARNES:** So how does it affect the
18 decommissioning costs and who is responsible for that? Is
19 it a joint venture or does one partner take principal
20 responsibility?

21 **MR. GITZEL:** Tim Gitzel for the record.

22 At Cigar Lake, the decommissioning of Cigar
23 Lake proper itself would be the responsibility of the
24 Cigar Lake partners and then I believe at each of the
25 sites in McLean Lake the McLean Lake partners. Again,

1 there's different partners at McLean Lake. Denison and
2 again the Japanese are responsible for McLean Lake
3 decommissioning costs and Rabbit Lake it's the Rabbit Lake
4 partners.

5 **MEMBER BARNES:** Okay. Thank you.

6 **THE CHAIRMAN:** Thank you. Mr. Graham.

7 **MEMBER GRAHAM:** Some of my questions were
8 answered by your questions, Mr. Binder and Dr. Barnes.

9 Just to follow up on the Cigar Lake, at the
10 present time this is strictly between McLean Lake, what we
11 are looking at today, between McLean Lake and Rabbit Lake;
12 is that correct?

13 **MR. GITZEL:** Tim Gitzel for the record.

14 It's a little bit more complicated. The
15 common partners in Cigar Lake are AREVA and Cameco, AREVA
16 owning the McLean project as well and milling facility and
17 tailings facilities, Cameco owning the Rabbit Lake
18 facility. Both of those are common partners in Cigar
19 Lake, but there are other partners as well, two Japanese
20 partners in Cigar Lake and AREVA has other partners at
21 McLean Lake. The common thread is AREVA and Cameco.

22 **MEMBER GRAHAM:** But all of the EA processes
23 and licensing and the haul road from Cigar Lake over to
24 McLean Lake, that's all been done in the past so that haul
25 road has nothing to do with the haul road here.

1 **MR. GITZEL:** Tim Gitzel for the record.

2 That was studied under the Cigar Lake
3 environmental assessment and certain parts of Dr.
4 Rowsen's, the McLean Lake project, were studied under the
5 McLean Lake environmental assessment.

6 **MEMBER GRAHAM:** Timelines I didn't really
7 get. The first thing you want to do is build the new
8 dykes and so on. When are you looking to do that? This
9 year or is it done in winter months? Could you just give
10 us the timelines that you would be looking for for a
11 licence?

12 **MR. GITZEL:** Tim Gitzel for the record.

13 The tailings pit crest is the most critical
14 piece that we would like to do this summer. You know the
15 short summer season up in the north; we have a couple of
16 months really that there's not frost and that would be the
17 best time to do that. So that's the critical piece.

18 The rest of it, as was already discussed
19 and mentioned by the EQC, we need to progress Cigar Lake
20 along. There's another application for a different day on
21 that project. It's moving along but there's some time yet
22 for the rest of it.

23 **MEMBER GRAHAM:** So the construction, the
24 dyke construction, is a summertime construction not a
25 wintertime?

1 **MR. GITZEL:** Tim Gitzel for the record.
2 That work would best be done in the
3 summertime.

4 **MEMBER GRAHAM:** What's the timeline to
5 build that if there's an approval? Can it be done in 60
6 days, 100 days?

7 **MR. GITZEL:** I'll ask Barry Esford. Barry
8 Esford will answer that. Thank you.

9 **MR. ESFORD:** Barry Esford for the record.
10 The construction time, there's several
11 components to the construction. There is the excavation
12 and then the placement of the drain material. The entire
13 thing we anticipate could be done in about five months, so
14 it would not be completed within the kind of summer
15 construction period, but we want to get as much of that
16 done as possible within the summer window.

17 **MEMBER GRAHAM:** What's your definition of
18 summer ending? Summer is starting, but what's the
19 definition up there of summer ending?

20 **MR. ESFORD:** I mean by October summer is
21 long over.

22 **MEMBER GRAHAM:** Thank you. Two other
23 questions I have.

24 The trucks hauling, it says -- I think I
25 read three to six trips a day on the road. Is there going

1 to be any backhaul with those trucks or is it strictly
2 hauling from McLean Lake down to Rabbit Lake or would
3 there be backhauls?

4 **MR. JARRELL:** John Jarrell for the record.
5 To my knowledge, there is no backhauls, but
6 I'll ask Glen to confirm that.

7 **MEMBER GRAHAM:** I meant like taking
8 something back to be treated or something.

9 **MR. JARRELL:** In the case of McArthur River
10 and Key Lake, it's the return of the empty containers is
11 essentially the backhaul.

12 **MEMBER GRAHAM:** The only other question I
13 have, Mr. Chair, is with regard to the acid plant. The
14 acid plant is not included in this I understood from one
15 of the presentation. Is it on the same footprint as the
16 old facility or why -- how does the construction of a new
17 acid plant not become part of this?

18 **MR. JARRELL:** John Jarrell for the record.
19 I will ask Dave Rezansoff to give you the details of the
20 construction. Essentially, the reason it's not part of
21 the environmental assessment is because there's as much a
22 requirement for the existing operations as there is for
23 this project.

24 **MEMBER GRAHAM:** Dr. Thompson, just one
25 other question, and that is, in the Assessment Results, 3

1 of 4, that slide, you have extreme weather conditions,
2 seismic events, climate change, forest fires also taken
3 into effect as we saw last night on the news regarding the
4 extreme fires, we have heard today about the fires up
5 there. Was that taken into effect, into consideration,
6 also?

7 **DR. THOMPSON:** Patsy Thompson for the
8 record. Yes, they were.

9 **THE CHAIRMAN:** Thank you. Dr. Barriault.

10 **MEMBER BARRIAULT:** Thank you, Mr. Chairman.

11 If I can draw your attention to page 36 of
12 the Table 4.1 of the CNSC Report. I'm a duck hunter and I
13 see that the Mallards in the Horseshoe Pond have a uranium
14 hazard quotient of 10.7. I guess I'm not clear what the
15 significance of that is.

16 **MR. JARRELL:** John Jarrell for the record
17 again. I think I'll ask Bruce Halbert who actually did
18 the assessment to provide some clarity to that.

19 **MR. HALBERT:** Bruce Halbert for the record.

20 Any of the hazard quotients that are above
21 the value of one suggest that there is a possibility of
22 some risk of effect to the species in question, whether
23 it's a Mallard or a muskrat, for example. That doesn't
24 mean that they necessarily are at risk but it does
25 indicate that further investigation is required.

1 Part of the follow-up monitoring that's
2 been talked about previously by the CNSC staff includes
3 monitoring of muskrat, et cetera, within the impacted
4 systems to indeed establish whether there is an effect or
5 not.

6 **MEMBER BARRIAULT:** I guess my next question
7 is how are you going to keep those ducks on Horseshoe
8 Pond?

9 **MR. HALBERT:** Bruce Halbert for the record
10 again.

11 It's not a matter of keeping them off the
12 pond. In this case, it's more a matter of assessing
13 whether they indeed are at risk. I should point out that
14 there are a number of conservative assumptions made in
15 doing an ecological risk assessment or even a health risk
16 assessment, for that matter. In this assessment here we
17 are assuming that the Mallard, in this case, when it's in
18 the study area it spends 100 per cent of its time on
19 Horseshoe Pond, gets all of its food and water, et cetera,
20 from the pond. That's a fairly unrealistic scenario. We
21 wouldn't expect that a mobile species like a waterfowl
22 would indeed spend their time all at one location. But
23 that's a typical approach that is taken in risk assessment
24 to do that to identify where there are potential risks
25 involved.

1 At the end of the day, for a mobile species
2 like any waterfowl, we would not expect them to be at this
3 kind of risk level.

4 **MEMBER BARRIAULT:** So they would not
5 survive, is what I'm hearing really, at that level.

6 MR. HALBERT: No. As I tried to indicate,
7 the fact that you calculate a risk level above one doesn't
8 necessarily mean that there is an effect, because as I
9 said there are several conservative assumptions to go into
10 it. What the risk assessment really -- the benefit or the
11 way it should be thought of is that it identifies areas
12 where further investigation should be undertaken to
13 establish whether they indeed are at risk.

14 Now, if I can just go a little bit further
15 here. Muskrat, for example, are also identified as being
16 at risk. As a follow-up that has already been undertaken
17 by Cameco, survey work has been undertaken within the
18 Horseshoe Creek watershed, which receives the effluent
19 discharge from the facility, as well as other references
20 to the watershed in that proximity. Muskrat have been
21 found to be present in the watershed just as they have
22 been within the other referenced areas. They are
23 reproducing; juvenile muskrat were also observed. So the
24 field evidence or the weight of evidence suggests that
25 they are there, they are reproducing and they indeed are

1 likely not at risk.

2 **MEMBER BARRIAULT:** With regards to the
3 waterfowl, obviously we have Mallards here but I can see
4 Canada geese, I can see other duck species also being
5 involved; is that correct?

6 **MR. HALBERT:** Bruce Halbert again for the
7 record.

8 Geese have a different dietary intake than
9 ducks. A Mallard mainly feeds on aquatic plants, some I
10 think invertebrates and in the process also consumes some
11 sediments. Geese, on the other hand, eat primarily
12 terrestrial vegetation so geese would not be at risk to
13 the same level at all as we would estimate for something
14 like a Mallard.

15 **MEMBER BARRIAULT:** Would it be safe for
16 humans to eat these ducks?

17 **MR. HALBERT:** Yes. That wouldn't
18 necessarily be an issue as far as human consumption is
19 concerned. When we look at how much we actually consume,
20 the intake is not that high.

21 **MEMBER BARRIAULT:** Thank you.

22 **THE CHAIRMAN:** Thank you. Mr. Tolgyesi
23 please

24 **MEMBER TOLGYESI:** The environmental quality
25 committee, they are saying in the letter that the Cigar

1 Lake has been even further delayed and they are surprised
2 that the project has been advanced. What does it mean?
3 That is the perception of the committee. When can we
4 expect that you will start the Cigar Lake project?

5 **MR. GITZEL:** Tim Gitzel for the record.

6 It's not just the perception; it's reality.
7 It has indeed been delayed. We have a program -- the
8 Cigar Lake mine flooded in 2006, the end of 2006, and we
9 have been working on a recovery plan over the past year
10 and a half now and are moving forward with that. Publicly
11 we stated that if all things go well and according to our
12 plan that the mine could come into production in 2011 at
13 the earliest. That's the timeframe we are looking at, so
14 sometime before or around 2011 would be the time that we
15 would start seriously looking at the road. We would want
16 it in place obviously before -- we wouldn't want to wait
17 until the last day. That's the timing for the Cigar Lake
18 mine at this moment.

19 **MEMBER TOLGYESI:** I have two. It's not
20 really a question; it's just a comment. One is for the
21 Commission.

22 You have two maps, one at page 34, another
23 one on page 44. The location of a mine site compared to
24 the other one is different. On page 44, McLean Lake is
25 northwest of Rabbit Lake and then on page 34 it's

1 southwest, so there is a little bit of difference. I
2 don't know, maybe just a couple of tens of kilometres.
3 That's one.

4 Another one is when you are looking at what
5 the licensee has proposed, at page 4 you are saying that -
6 - locating communities -- that Wollaston Lake and Hatchet
7 Lake located approximately 32 kilometres southeast of
8 Rabbit Lake, that's the nearest community, and the next
9 closest community is Black Lake which is situated 145
10 northwest of McLean and 20 from Rabbit Lake. I don't
11 know. One is northwest, the other one is southeast, so
12 maybe you missed the zero; it's supposed to be 200.

13 **MR. GITZEL:** Tim Gitzel for the record.

14 The map that you have on page 44 shows the
15 right bearing. The north would be north in that one. I
16 know just to confuse us I think some of the mining people
17 don't always follow the compass, but indeed the McLean
18 Lake project is northwest of the Rabbit Lake project. The
19 Wollaston Lake community is indeed 32 kilometres to the
20 southeast of Rabbit Lake and what we call the Athabasca
21 communities, Stony Rapids, Black Lake, they are one
22 hundred and ---

23 **MEMBER TOLGYESI:** Forty-five. That's what
24 you are saying.

25 **MR. GITZEL:** Thank you, to the north.

1 **MEMBER TOLGYESI:** That's it.

2 **THE CHAIRMAN:** I have two quick questions.

3 Is the Saskatchewan government waiting for
4 us to make a decision? Is that the interpretation?

5 **DR. THOMPSON:** Patsy Thompson. I'll ask
6 Mike Rinker to provide details. He has spoken recently
7 with Saskatchewan officials.

8 **MR. RINKER:** Mike Rinker for the record.

9 The Saskatchewan environment is perhaps a
10 little bit behind us in terms of process. They are not
11 waiting for us. Staff have delivered a recommendation to
12 the Minister of Environment only very recently so it will
13 be a question of whether we would wait for them.

14 **THE CHAIRMAN:** Do we need their approval to
15 proceed?

16 **DR. THOMPSON:** Patsy Thompson for the
17 record.

18 No. There are two separate decisions. The
19 decision that the Commission has to make is in relation to
20 the *Canadian Environmental Assessment Act*. What the
21 province has to make is a decision under another act.

22 If the Commission were to essentially
23 conclude that the project could go ahead a licence from
24 the CNSC would be required as well as the required permits
25 from the province, but they are a separate process.

1 **THE CHAIRMAN:** Hypothetically, we can
2 actually have one approve, one doesn't.

3 **DR. THOMPSON:** That could be the case.

4 **THE CHAIRMAN:** Not a case we want to see;
5 right?

6 **DR. THOMPSON:** Patsy Thompson for the
7 record.

8 It's an unlikely case. More seriously both
9 Saskatchewan, Environment staff and our own staff with the
10 CEAA coordinator have been working together to make sure
11 that the requirements for both legislation are covered.
12 My understanding is the assessments meet the requirements
13 of the province as well as the federal requirements and,
14 as Mr. Rinker mentioned, the provincial staff have made a
15 positive recommendation to their minister.

16 **THE CHAIRMAN:** The last question. I think
17 the intervener made an interesting suggestion, that
18 decommissioning is an ongoing activity rather than an end
19 activity. Does that make sense?

20 **MR. JARRELL:** John Jarrell for the record.

21 Yes, I do believe it does. Probably in
22 terms of licensing there is, I think Dave Rezansoff was
23 alluding to this, a difference between reclamation and
24 decommissioning in terms of the actual licensing process
25 itself.

1 The overall strategy that we have had is
2 really to focus on the simpler issues first and then the
3 more difficult ones later, by "simple" I mean things like
4 re-vegetation, the dismantlement of disused buildings and
5 the like like that. There are a series of projects where
6 there is advantage sooner rather than later. An example
7 of that would be the shaping of waste rock piles. The
8 reason for that is that just the process of reshaping them
9 has an environmental effect on that waste rock pile so
10 there are certain advantages to doing it sooner rather
11 than later.

12 There are complex issues that are not
13 required now and there are complex issues that are sort of
14 linked to current operations so there is sort of that
15 gamut of activities.

16 I think many people obviously desire that
17 sooner is better than later. From our perspective, I
18 think there are certain concerns with the degree of
19 certainty that we would revisit some of these decisions.
20 That speaks to this reclamation versus decommissioning
21 issue to some extent.

22 Another thing is filling these in with what
23 else is going on on the site at any given time. In the
24 Day 1 licensing, CNSC staff have proposed a licence
25 condition which would ask us to better articulate what our

1 plans are. I guess our view essentially is that's
2 certainly a reasonable request. It's certainly something
3 everyone wants. Also, as we are looking at quite a bit of
4 continued life for the Rabbit Lake facilities it seems
5 only appropriate that we sort of take a step back and look
6 at what the overall plan is to do reclamation.

7 But in general, we support the concept of
8 progressive reclamation during operation, yes.

9 **THE CHAIRMAN:** Would staff require to do
10 something different than usual?

11 **DR. THOMPSON:** Patsy Thompson for the
12 record.

13 I will provide a general overview and then
14 I will ask Mr. Kevin Scissons to provide details
15 specifically for Rabbit Lake.

16 In terms of the CNSC licensing regime a
17 number of models exist. For example, AECL's Chalk River
18 site licence allows -- we have done many assessments for
19 decommissioning or demolition of certain buildings within
20 the Chalk River site and those have been done under the
21 operating licence with assessments done for specific
22 projects.

23 Other groups have chosen a different
24 regulatory regime. For example, Cameco's licence for the
25 Port Hope conversion facility Vision 2010 Project is a

1 major decommissioning work that is being done under a
2 different licensing regime with a decommissioning licence
3 to be issued for that project and a separate operating
4 licence. So there are different licensing regimes that
5 are possible.

6 For the way the CNSC has interpreted the
7 requirements of the *Canadian Environmental Assessment Act*
8 is if a site or a large proportion of the site were to be
9 decommissioned the *Canadian Environmental Assessment Act*
10 requires a comprehensive study for decommissioning. When
11 decommissioning activities are being done under an
12 operating licence, normally, screening environmental
13 assessments are being done.

14 I will ask Mr. Kevin Scissons to provide
15 more specific details for the Rabbit Lake facility.

16 **MR. SCISSONS:** Kevin Scissons, the Director
17 of Uranium Mines and Mills Division.

18 There clearly is a line on this about
19 decommissioning, environmental assessment steps and
20 everything that goes with it. At the same time, both
21 ourselves, in a partnership with the province of
22 Saskatchewan and the Ministry of Environment, we look at
23 these opportunities as ongoing reclamation activities and
24 putting to bed the sites that are completed. In
25 actuality, we look at a cessation of operations as an

1 activity to remediate and go to quite an extensive measure
2 towards the decommissioning and it's also complementary
3 with the preliminary decommissioning plan.

4 So the concerns the licensee have of
5 changes down the road or certainty is it's all about a
6 combined process towards the overall preliminary
7 decommissioning plan, cessation of operations, ongoing
8 reclamation activities and then final verification when
9 and if the overall decommissioning of the site facility
10 takes place. These are all going down that same road
11 together.

12 Clearly, there are environmental assessment
13 triggers if there is a large decommissioning component
14 addressed, but in essence reclamation and cessation of
15 operations allows a significant amount of this work to be
16 completed, waste rock piles regraded, buildings removed
17 that are redundant, are no longer necessary and to make
18 work areas safe, especially if workers are no longer there
19 or available, and you can clearly remove some of the
20 decommissioning liabilities and environmental impacts by
21 these reclamations of vacant or unused facilities any
22 more.

23 **THE CHAIRMAN:** I think we will have to
24 discuss this more. I'm just concerned that our regulatory
25 environment is a barrier for quick decommissioning because

1 we don't want to do another environmental assessment. I
2 just don't know. I'm just attracted to the idea of doing
3 an evaluation assessment if you can build in an ongoing
4 decommissioning in spite of one environmental assessment
5 rather than having another one later on. That may be an
6 attractive incentive to decommissioning.

7 **MR. SCISSONS:** If I could speak to that? I
8 absolutely confirm that as a matter of fact the proposal
9 of this in an existing operating licence condition clearly
10 reaffirms that, that the regulator in essence is
11 encouraging and promoting with the licensee to undertake
12 those reclamation activities under an operating licence
13 and the operating licence, which has also been reviewed
14 under the environmental assessment says that this process
15 is not an environmental assessment trigger because it's
16 reclamation under an operating licence, and I think we are
17 all going down the same road together.

18 **THE CHAIRMAN:** That's fine.

19 **MEMBER HARVEY:** On page 19 of the screening
20 report there is two different units, metric and English,
21 so it must be just a coquille but it should be adjusted,
22 otherwise it's difficult to read the numbers.

23 **MR. RINKER:** Mike Rinker for the record.

24 Excuse me; those units are both in I
25 believe kilograms per year. There is an error in

1 remaining pounds per year.

2 **THE CHAIRMAN:** Any other questions?

3 Thank you very much. We kept you long
4 enough. You can actually now go for dinner.

5 **MR. LEBLANC:** With respect to this matter,
6 the Commission will confer with regard to the information
7 that it has considered this evening and determine if
8 further information is needed or whether it's ready to
9 proceed with a decision and we will advise accordingly and
10 we will advise rapidly. Thank you.

11 --- Upon adjourning at 8:26 p.m.

12