

1 **Cameco Corporation:**
2 **Application by Cameco**
3 **Corporation for Renewal of Class**
4 **1B Nuclear Fuel Facility Operating**
5 **Licence for its facility in Blind**
6 **River, Ontario**

7

8 **06-H20.1B**

9 **Oral presentation by**
10 **Cameco Corporation**

11

12 **MR. ROGERS:** Thank you, Madam President.
13 Good morning, Members of the Commission and staff.

14 For the record, my name is Terry Rogers,
15 Senior Vice-President and Chief Operating Officer of
16 Cameco Corporation.

17 We are pleased to be here today to be able
18 to present our Blind River Refinery at this Day Two of
19 the licensing hearing. The Blind River Refinery has been
20 operating for 23 years with outstanding safety and
21 environmental performance, and is getting better through
22 continual improvement.

23 In addition to the 9,000 tonnes of
24 concentrates that Cameco delivers to this refinery, this
25 year an additional 9,000 tonnes of concentrates from

1 other producers around the world is refined in Blind
2 River.

3 The Blind River Refinery is an important
4 link in the nuclear fuel cycle chain as a global impact.

5 Also with us here today for Cameco is Bob
6 Steane, the Vice-President of Cameco's Fuel Services
7 Division, John Jarrell, Cameco's Vice President of
8 Safety, Health and Environment, and Liam Mooney, Senior
9 Legal Advisor for Safety, Health and Environment.

10 Presenting here today will be Chris
11 Astles, the Manager of the Blind River Refinery and he is
12 ably backed by Joe DeGraw, the Superintendent of Quality
13 Compliance and Licensing for the Blind River Refinery.

14 So I'd like to turn now the presentation
15 over to Chris and he will proceed and conclude our
16 presentation. Thank you.

17 **MR. ASTLES:** Good morning. For the
18 record, my name is Chris Astles and I am the Manager of
19 the Blind River Refinery.

20 The purpose of our presentation today is
21 to address the request for additional information made by
22 the CNSC Commission at our Day One Hearing and to provide
23 information on activities or issues since the Day One
24 Hearing on October 5th.

25 The first issue was with respect to

1 sediment sampling. In our Day Two CMD, we had included
2 the executive summary and other pertinent excerpts from
3 the effluent plume delineation and sediment quality
4 report that were submitted to the CNSC staff earlier this
5 fall.

6 As we indicated at Day One, the measured
7 concentrations of all parameters were below guideline
8 values and for parameters without guideline values such
9 as radionuclides, concentrations in the exposure and
10 reference areas were similar.

11 At Day One, Cameco indicated that there
12 was a downward trend in uranium emissions during the
13 current licensing period. This slide and the next two
14 speak to this point. As this graph shows, annual
15 refinery uranium emissions are greatly reduced compared
16 to results from the previous licensing period and have
17 remained relatively stable since 2003, with an
18 approximate three-fold reduction emissions from 2000 to
19 2003.

20 Note that the 2006 value shown in this
21 graph has been prorated through the end of 2006 based on
22 actual emissions through the end of September. The
23 slight increase evidenced in the last few years is as a
24 result of increased operating days for each year.

25 This graph shows total uranium emissions

1 from the refinery as a function of production, which is
2 tonnes of UO3 produced, and again, the sharp downward
3 trend between 2000 and 2003 is evident with a less
4 dramatic but still discernable downward trend for the
5 2004 to 2006 period.

6 This last graph shows refinery emissions
7 as a function of UO3 plant operating days in a given
8 year, with a downward trend again evident though
9 flattening out over the last few years.

10 As shown in this slide, there were 11
11 different CNSC inspections during the current licensing
12 period covering the areas of radiation protection,
13 environmental protection, quality assurance, training,
14 transportation, security, fire protection, and emergency
15 response.

16 Of the 12 open actions, 6 are from the
17 recently completed Quality Assurance Audit in September.
18 This audit report was received by Cameco approximately
19 one month ago and Cameco was given 60 days to respond to
20 these actions. Of the remaining audit findings four are
21 from an audit of training, one from an environmental
22 audit and one from a radiation protection audit. The
23 audit reports for each of these audits were issued in the
24 first half of this year.

25 The average Cameco soil sampling results

1 from the 2002 to 2006 period are shown in this graph and
2 as you can see, show a stable and somewhat decreasing
3 downward trend. Cameco has also provided the Commission
4 in our CMD submission, a copy of the most recent
5 phytotoxicology report issued by the MOE in 2005 which
6 confirms that there are no measurable uranium emissions
7 from Cameco in either of our two neighbouring
8 communities.

9 Cameco has summarized some of its
10 groundwater monitoring data for the current licensing
11 period in the new few slides. As the graphs indicate
12 there is a little change in groundwater results over the
13 course of licensing period and the results as a whole are
14 actually lower than those reported during pre-operational
15 monitoring activities in the early 1980s.

16 Ph values in groundwater have been
17 relatively stable over the current licensing period, with
18 no marked differences between results of upstream and
19 downstream locations.

20 Uranium values in groundwater also
21 remained relatively stable during the licensing period
22 with no clear trends emerging. The highest single
23 uranium value reported was 5.9 micrograms per litre at
24 bore hole No. 17. However, the next sample taken from
25 that bore hole, which was approximately six months later

1 was back down to .9 micrograms per litre.

2 It should also be noted that during pre-
3 operational monitoring a uranium result of 60 micrograms
4 per litre was reported from one of the downstream bore
5 holes which obviously was biased -- has biased the pre-
6 operational downstream average result. Without that
7 sample result the average pre-operational downstream
8 uranium value would be 1.2 micrograms per litre which is
9 more in line with other downstream average annual uranium
10 results.

11 Nitrate values have also remained
12 relatively stable. The slight increase noted in the 2006
13 results has been investigated by our analytical
14 department with no discernible analytical aberrations in
15 the 2006 data noted.

16 Given that the results remain quite low,
17 less than .1 milligrams per litre and were seen in both
18 the upstream and downstream results, this may be
19 attributable to normal variations in groundwater
20 chemistry. Cameco will of course monitor this situation
21 to see if there's any evidence of a continuing trend in
22 2,000 samples to be collected and analyzed.

23 Radium-226 results in groundwater remained
24 stable during the current period as well.

25 We have included the executive summary

1 from our updated ecological risk assessment report in our
2 CMD submission. This report concluded that refinery
3 emissions are not expected to significantly impact the
4 environment under either current or proposed future
5 conditions. These future conditions are the incinerator
6 upgrade and plant production capacity increase.

7 As requested at the Day One Hearing we
8 have provided organizational charts in our written
9 submission for Day Two. This chart shows the entire
10 Cameco organizational structure with respect to the Blind
11 River refinery. And this chart shows the Blind River
12 refinery organization.

13 Cameco regrets that at this time we cannot
14 present internal dosimetry data and therefore effective
15 dose data to the Commission. As is indicated in this
16 slide we are very close to having the data compiled and
17 will provide a summary of the data to CNSC staff as soon
18 as possible.

19 A short summary of additional information
20 was provided in our CMD submission highlights of which
21 are shown in this slide. Cameco was informed last Friday
22 that the incinerator EA study report was approved by a
23 Panel of the Commission. In light of this approval
24 installation of the pollution control equipment will
25 commence in early January.

1 Cameco also wishes to inform the
2 Commission that the draft EA Screening Report for a
3 planned production capacity increase was submitted to the
4 CNSC staff last week. As is indicated in the
5 application, Cameco is hoping to receive regulatory EA
6 approval by the end of June 2007 so that the installation
7 of a solvent extraction strip columns can be done during
8 the summer shutdown period.

9 We trust our written submission and this
10 presentation addressed all of the Commission concerns or
11 requests for additional information raised at our Day One
12 Hearing. We're now pleased to answer any questions you
13 may have and this concludes our presentation.

14 **THE CHAIRPERSON:** Thank you very much.

15 I'd like then to move now to the
16 presentation by the CNSC staff as outlined in CMD 06-
17 H20.B and I'll turn to Mr. Barclay Howden, Director
18 General responsible for this licence.

19 Mr. Howden, you have the floor, sir.

20

21 **06-H20.B**

22 **Oral presentation by**

23 **CNSC staff**

24

25 **MR. HOWDEN:** Thank you. Good morning,

1 Madam Chair, members of the Commission.

2 For the record, my name is Barclay Howden;
3 I'm the Director General of the Directorate of Nuclear
4 Cycle and Facilities Regulation.

5 With me today are Mr. Henry Rabski,
6 Director and Mr. David Werry, Project Officer, both in
7 the Processing and Research Facilities Division, plus the
8 rest of the licensing team for this facility.

9 CNSC staff has reviewed the operation of
10 the facility and the licensee's application to renew its
11 Blind River Class 1B nuclear fuel facilities operating
12 licence that will expire February 28, 2007.

13 Based on this review, CNSC staff has
14 formed a position on the application which is documented
15 in CMD 06-H20 and 06-H20.B. The position includes a
16 recommendation that the Commission renew the operating
17 licence for another five year term.

18 I will now pass the presentation over to
19 Mr. Rabski first and then to Mr. Werry who will provide
20 you with CNSC staff's recommendations for licence
21 renewal.

22 **MR. RABSKI:** Good morning, Madam Chair,
23 members of the Commission. For the record my name is
24 Henry Rabski.

25 Our presentation this morning has six

1 parts. I will first provide the Commission an
2 introduction to the facility, followed by a discussion of
3 CNSC staff's review of the Blind River licence renewal
4 application.

5 Then, Mr. Werry will highlight the
6 licensee's safety programs and performance in various key
7 safety areas along with updates on follow-up items
8 arising from the October 5, 2006 Public Hearing Day One.

9 Following that, other relevant information
10 to this licence renewal, including an update on the
11 licensee's preliminary decommissioning plan and financial
12 guarantee will be discussed.

13 Finally, our presentation will provide the
14 Commission with CNSC staff's conclusions and
15 recommendations for the licence renewal.

16 Throughout our presentation we will refer
17 to the licensee, Cameco Corporation as Cameco or
18 interchangeably, the Blind River facility.

19 I'll now begin the presentation with an
20 introduction to the facility. Cameco operates the Blind
21 River facility for the conversion of Yellowcake to
22 uranium trioxide powder.

23 Cameco receives natural uranium mined and
24 processed into Yellowcake primarily from Saskatchewan,
25 along with other mines from around the world.

1 The converted product is shipped via
2 special designed trucks to Cameco's Port Hope facility
3 for further processing. The facility is licensed to
4 produce up to 18,000 metric tonnes of uranium as uranium
5 trioxide powder in any calendar year.

6 The risks that the facility are mainly due
7 to conventional industrial hazards associated with the
8 manufacturing plant and radiological hazards associated
9 with Yellowcake and uranium trioxide.

10 Cameco's safety analysis report
11 demonstrates that the overall risk to the workers, the
12 environment, and the public, from normal operations and
13 accident scenarios is not unreasonable.

14 There have been no amendments to the
15 licence since it was renewed in February 2002.

16 The second part of our presentation
17 relates to CNSC staff review of Cameco's licence renewal
18 application.

19 The operating licence for the facility
20 expires February 28, 2007 and Cameco has applied for the
21 renewal of its licence for another five year period.
22 CNSC staff review of the application concludes that it
23 meets requirements. As part of the CNSC's licensing
24 process, CNSC staff also reviewed the application to
25 determine whether an environmental assessment under the

1 *Canadian Environmental Assessment Act* was required.
2 Based on this review, CNSC staff determined that an
3 environmental assessment under the *Canadian Environmental*
4 *Assessment Act* is not required before the Commission may
5 make its decision in respect of the application for the
6 renewal of the licence.

7 Accordingly, at this time, CNSC staff is
8 recommending that the licence be renewed as requested by
9 Cameco in its application.

10 This completes the second part of our
11 presentation and I now will ask Mr. Werry to continue
12 with the rest.

13 **MR. WERRY:** Good morning, Madam Chair,
14 Members of the Commission.

15 For the record, my name is David Werry.

16 In my presentation, I will highlight
17 staff's assessment of licensee's performance in key
18 safety areas. I will also update the Commission on
19 follow-up actions from the October 5th, 2006 licence
20 renewal public Hearing Day One.

21 There are eight key safety areas; namely
22 radiation protection, environmental protection, emergency
23 preparedness, fire protection, quality assurance,
24 operations, safeguards and security. Since the security
25 program contains prescribed information a separate

1 report, CMD 06-H20.A, was provided to the Commission for
2 Hearing Day One.

3 To verify whether Cameco has been
4 operating the facility as required by the regulatory
5 requirements, CNSC staff conducted quarterly compliance
6 inspections and performed reviews of information
7 submitted by the licensee; including quarterly and annual
8 compliance reports, incident reports and third party
9 review reports.

10 In addition, CNSC staff conducted several
11 specialized compliance inspections in the following
12 safety areas during the current licensing period;
13 radiation protection, environmental protection, fire
14 protection, security, emergency preparedness and response
15 and safeguards. These compliance inspections revealed no
16 significant non-compliance items during the licence
17 period.

18 For those actions, notices and
19 recommendations that the inspections raised, Cameco
20 addressed them in a satisfactory and timely matter. When
21 additional information was requested Cameco's responses
22 were prompt and to the satisfaction of CNSC staff.

23 As reported in detail at the October 5th,
24 2006 public hearing, Cameco has operated the facility in
25 accordance with their regulatory requirements and defence

1 and depth operational controls. CNSC staff's assessment
2 of "B" was given to the licensee's performance in each
3 safety area. A rating of "B" means that the requirements
4 were met.

5 A consistent trend indicator for all of
6 the safety areas was also assigned based on Cameco's
7 submission of materials and programs, reactions to events
8 and plant improvements.

9 Now, I will provide an update from the
10 items requested on Hearing Day One. These include the
11 status of the Type 1 and Type 2 inspections, their
12 actions and directives; the status of the emergency
13 exercise attended by the CNSC staff in October 2006; an
14 update on the Quality Assurance Program implementation
15 arising from the Type 1 audit inspection conducted in
16 September 2006; an update on the licence condition
17 proposed as a transition period for the implementation of
18 NFPA-801 (2003 edition) and an update on a Revised
19 Preliminary Decommissioning Plan and financial guarantees
20 submitted in 2006.

21 On Hearing Day One, the Commission
22 requested more information on a number of actions and
23 direction issued to Cameco arising for the Type 1 and
24 Type 2 inspections and their status. There were 21
25 action notices issued arising from Type 1 or audit

1 inspections over the licence duration. Sixteen (16) of
2 these are now closed. Four action items remain open and
3 will be addressed with Cameco's further progress in its
4 implementation of the systematic approach to training.
5 One action item is a longer term and will remain open in
6 2008 to '09 and again it relates to training.

7 There were 41 action notices and
8 directives issued resulting from Type 2 routine
9 compliance inspections. Only one remains open and will
10 be addressed early in 2007 with the annual review of the
11 outstanding items.

12 A recent QA inspection raised an
13 additional six items that remain open.

14 Immediately prior to Hearing Day One, CNSC
15 staff witnessed a multi-disciplinary emergency training
16 exercise at the Blind River facility. Overall, staff has
17 rated this as a "B" or "meets expectations".

18 Cameco provided an adequate number of
19 responders on the team designated for response. Their
20 response time was quick. The equipment used was
21 satisfactory. In training of the ERT and medical teams
22 demonstrated that there was good interaction with offsite
23 authorities.

24 Prior to the exercise witnessed by CNSC
25 staff, Cameco conducted six specific monthly training

1 activities in 2006. The six areas include; a review of
2 the Emergency Response Plan and alarms; WHMIS or
3 workplace hazardous information system; safe handling of
4 uranium; NFPA-472 or hazardous material operations level
5 certification; uranium decontamination and first
6 responder rehabilitation; an emergency response table-top
7 exercise and an annual fire brigade field exercise too,
8 for the process crews. CNSC staff are satisfied with the
9 frequency and content of the training exercises.

10 Next, I will update the Commission with
11 regard to the quality assurance implementation, the Type
12 1 inspection conducted in September 2006. Cameco has
13 established and implemented a QA program in accordance
14 with the Class 1 Nuclear Facilities Regulations. None of
15 the findings affect the "B" rating assigned for the QA
16 program reviewed and shown on the Hearing Day One.
17 Overall, a "B" ranking and "consistent trend" is assigned
18 for QA implementation. CNSC staff is satisfied with
19 Cameco's implementation of its QA program.

20 As directed by the Commission at Hearing
21 Day One, CNSC staff met with Cameco representatives to
22 discuss the concerns that the proposed licence would not
23 provide any transitional period for implementing a
24 proposed new fire safety standard, the National Fire
25 Protection Association 801, 2003 edition under licence

1 condition 7.1 to 7.5 of the proposed licence.

2 Based on this discussion and licensee's
3 commitment to enhance its facilities' existing fire
4 safety program, including performing a fire hazard
5 analysis in accordance with the proposed NFPA-801, 2003
6 edition, CNSC staff concludes that; (a) fire protection
7 provisions that the licence currently has in place at the
8 facility do not pose an unreasonable risk to persons or
9 the environment and that a transitional period for
10 meeting the requirements of the NFPA-801, 2003 edition
11 standard would not pose an unreasonable risk to persons
12 or to the environment.

13 Therefore, CNSC staff recommends that the
14 existing licence condition 7.2 as given in CMD 06-H20 be
15 amended to allow a transitional period to one year for
16 NFPA-801, 2003 edition. The proposed licence attached to
17 the CMD has incorporated this amended condition 7.2.

18 I will now report to the Commission on the
19 status of CNSC's review of Cameco's updated Preliminary
20 Decommissioning Plan dated September 2006.

21 As requested by CNSC staff, Cameco updated
22 its Preliminary Decommissioning Plan originally dated
23 December 2001 for its Blind River facility; it submitted
24 an updated PDP and financial guarantee cost estimate,
25 dated September 2006 for CNSC staff's review. The

1 estimated decommissioning cost in the updated PDP is
2 approximately 32 million. This cost estimate is 17.4
3 million higher than the one provided in 2001. Cameco has
4 committed to submit an amended letter of credit to cover
5 the full cost of the proposed financial guarantee as set
6 out in its PDP of September 2006, once the financial
7 guarantee has been reviewed and accepted by the
8 Commission.

9 Cameco staff -- I should say CNSC staff
10 has reviewed Cameco's PDP and associated financial
11 guarantee cost estimate dated September 2006 and has
12 concluded that the PDP and decommissioning cost estimate
13 require further revision before CNSC staff can recommend
14 acceptance of the proposed financial guarantee to the
15 Commission.

16 Once Cameco's revised PDP and financial
17 guarantee cost estimate is received, reviewed and
18 accepted by CNSC staff, it will be forwarded to the
19 Commission for its consideration and decision. Subject
20 to the Commission's acceptance of the new PDP and
21 financial guarantee, CNSC staff will request the licensee
22 to submit an amended letter of credit to cover the full
23 cost of the proposed financial guarantee in accordance
24 with licence requirements.

25 Next, I will present CNSC staff's

1 conclusions based on the findings from the compliance
2 inspections review of the licensee's performance data and
3 assessment of the licensee's application for the licence
4 renewal.

5 CNSC staff concludes that Cameco is
6 qualified to carryout the activities that the proposed
7 renewed licence will authorize. Cameco's application for
8 licence renewal meets the requirements of *the Nuclear*
9 *Safety and Control Act* and associated regulations and
10 Cameco has made and, in CNSC staff's opinion, will
11 continue to make provisions for the protection of the
12 environment, the health and safety of persons and the
13 maintenance of security and the measures required to
14 implement international obligations to which Canada has
15 agreed.

16 And finally, an environmental assessment
17 under the *Canadian Environmental Assessment Act* is not
18 required before the Commission may make its decision in
19 respect to the application for the renewal of the
20 licence.

21 Finally, to end our presentation, I will
22 present staff's recommendations for the licence renewal.

23 CNSC staff recommends that the Commission:
24 (a) accept staff's conclusions made in this CMD; and (b)
25 approve the licence renewal for the proposed Nuclear Fuel

1 Facility Operating Licence, number FFOL-3632.0/2012 to
2 Cameco Corporation for a period of five years, valid to
3 February 29th, 2012.

4 This concludes staff's presentation and
5 now I will turn it over to Mr. Howden.

6 **MR. HOWDEN:** Thank you.

7 Madam Chair. That concludes our
8 presentation and staff is prepared to respond to
9 questions.

10 **THE CHAIRPERSON:** Thank you.

11 Before opening the floor to Commission
12 Members, we will hear the two oral presentations from
13 intervenors.

14 I would like to remind intervenors that we
15 have read your whole written presentation as well and we
16 are going to be taking that into consideration, as well
17 as your oral presentation today. And as such, we have
18 allocated approximately 10 minutes for each presentation
19 and we look forward to your presentation today.

20 So I'd like to move to the first oral
21 presentation by the Canadian Uranium Alliance outlined in
22 CMD 06-H20.2, and Mr. Philip Penna is with us. And Mr.
23 Penna, thank you for joining us today and the floor is
24 yours, sir.

25

1 opening scenes a conversation between Satan and the Most
2 High God. God says to Satan, "In your travels, did you
3 see Jobe and how wonderful he is?" And Satan says, "He
4 loves you only because you bless him. Give me permission
5 to trouble him and see what happens."

6 God then gives him a licence to take away
7 all his possessions but says, "Keep your hands off this
8 person" and Satan does so. Jobe still does not open his
9 mouth against God. Satan returns to the throne of the
10 Lord and says, "So far, you are right, but touch his bone
11 and flesh and he will curse you." So God says, "All
12 right. Go ahead, but spare his life" and Satan does so.

13 In this story, Satan asks for a licence to
14 destroy and God grants him the licence and the licence
15 renewal. Both times, Satan is able to execute what he
16 was given a licence to do. Satan was able to abide by
17 the terms of the licence.

18 The question today is, has Cameco abided
19 by the terms of the licence you have given them? I would
20 argue that they have not. I will cite only one example,
21 partially for time and partially for only one is enough.

22 In CMD 06-H20.1, Cameco states that, and I
23 quote:

24 "There have been two exceedances of
25 the CNSC monthly action level for the

1 whole body exposure, one in 2003 and
2 one in 2004 during the current
3 licensing period."

4 So they exposed two people, I assume,
5 maybe one person twice, to too much gamma radiation.
6 Cameco was not supposed to do that. One might respond
7 that they acted upon this and corrected the problem.

8 But, (a) why was there a problem in the
9 first place, and, (b) why did it take two exceedances to
10 get any action taken?

11 What should the Commission's response be
12 therefore to this company that I believe is ineffective
13 at protecting its workers and building main bulkhead
14 doors at Cigar Lake, and in speaking plainly about
15 history and other important matters?

16 And I direct your attention to an article
17 printed in the Saskatoon Star Phoenix dated December 1st
18 entitled, "Worker Disputes: Flood Evacuation".

19 What does the parable tell us?

20 One must remember that God gives Satan a
21 licence to cause Job trouble because God has the power
22 to rectify the trouble that he allows Satan to
23 accomplish.

24 Does the Commission have this power? Can
25 the Commission restore the damage done to those exposed

1 workers? Can the Commission restore the air, water and
2 soil surrounding the refinery from the contaminant load
3 it now carries and will be added to if Cameco is given a
4 new operating licence? The answer is no, the Commission
5 does not have this power.

6 I therefore conclude my comments with the
7 conclusion of our written comments: five more years in
8 Blind River is five years too long.

9 Thank you.

10 **THE CHAIRPERSON:** Thank you very much, Mr.
11 Penna.

12 I will now then move to the presentation
13 by Northwatch in CMD 06-H20.3, and Miss Brennain Lloyd is
14 with us today.

15 Miss Lloyd, thank you for joining us and
16 the floor is yours, ma'am.

17

18 **06-H20.3**

19 **Oral presentation by**

20 **Northwatch**

21

22 **MS. LLOYD:** Thank you. Thank you for the
23 opportunity to share our observations and our concerns
24 with respect to the Blind River Uranium Refinery for you.

25 My name is Brennain Lloyd and I work with

1 Northwatch. We are a regional coalition of community-
2 based environmental and social development groups in
3 north-eastern Ontario. We have been in operation since
4 1988 and we address issues of a regional nature,
5 primarily issues related to resource extraction, natural
6 resource management and conservation; mining, forestry,
7 energy, the nuclear legacy in our region from both the
8 uranium refinery and the mines in the Elliot Lake Basin.

9 And we do this both by providing support
10 to our local membership and our local member groups and
11 by acting as a regional voice or a representative body to
12 give voice to these concerns.

13 With respect to the Blind River facility,
14 we have intervened in previous licensing exercises in the
15 late '90s and in 2001 and we have also been participating
16 in the environmental assessments with respect to both the
17 expanded production and the increased incineration
18 functions.

19 Our submissions can be summarized into
20 four main areas, and I'm going to highlight and summarize
21 from our written submission of November 10th. But our
22 concerns can be summarized into four main areas; concerns
23 with respect to Cameco's environmental performance and
24 how it affects both human health and the environment.

25 Some of what we take exception to as

1 misrepresentation within Cameco's submission, CMD 06-
2 H20.1, and our view is that Cameco should be engaging
3 much more responsibly with the public and specifically
4 through the Blind River Area Environmental Monitoring
5 Committee.

6 And finally, our general point is that we
7 don't support a five-year licence, the five-year licence
8 application for the facility in Blind River.

9 With respect to facility performance, we
10 have two sets of concerns. They relate to human health
11 and to the environmental burden or environmental impacts
12 of the facility.

13 And we note that in the CMDs prepared by
14 both Cameco Corporation and the CNSC staff, they provide
15 an overview of Cameco's operating and environmental
16 performance within the current licence period and both
17 submissions take a generally positive attitude towards
18 the company's performance of the Blind River facility.

19 As a member of the public and a public
20 interest organization, when we read the same documents we
21 take a less positive attitude towards that performance
22 and we're actually troubled by the information that's
23 provided, even within the CMDs and we're going to
24 highlight some of the examples of that cause for concern.

25 In particular, we have concerns about the

1 radiation protection performance at the refinery. There
2 are a number of examples. A few of those examples are
3 the incidents where average and maximum whole body and
4 skin dose results for the employees at the refinery, they
5 show troubling trends. For example, average whole body
6 dose was higher in 2005 than it was in either 2002 or
7 2004 and the average skin dose was higher than it was in
8 2002 or 2004. And the maximum skin dose was almost
9 double in 2005 than it was in 2002.

10 We didn't include the first quarter of
11 2006 in our review because it wasn't a complete year, but
12 we see there a disturbing trend.

13 We're also disturbed by the number of
14 action levels and directives that the company was given
15 in the course of the licensing period. For example,
16 there were four action levels, three involving process
17 operators and one involving a millwright.

18 In one case the measurable lung burden was
19 six times the action level. In another case it was five
20 times the action level. There was an external whole body
21 exposure of 4.2 milliSieverts. That's one and a half
22 times the action level and in a fourth incident a process
23 operator received a 3.9 milliSievert whole body exposure.

24 All of those exceeded the action level,
25 and we think that's a troubling trend and even if these

1 items, incidents, are corrected after the fact, that the
2 incidents are taking place is, I think, a great cause for
3 concern.

4 Thirdly, Cameco's Table 4 shows lung dose
5 rates have overall increased during the licensing period
6 for two of the four work groups. The counts were higher
7 in 2004 than in 2002 and the highest individual result
8 increased each year with the 2005 highest individual
9 result in 2005, more than double the highest individual
10 result in 2003. We think these are significant factors
11 and need to be given a great deal of concern.

12 With respect to environmental performance,
13 Cameco reports that the uranium in soil concentrations
14 around the refinery's perimeter average less than 4 parts
15 per million and we have two concerns about that. One is,
16 it's double the background and two is that's the average.
17 That raises for us real concerns about what the range is.
18 If the average is four, that suggests that there's a
19 range that might have some samples much, much higher.

20 I don't know if I have the document with
21 me, but I'll also note with interest that when you
22 compare the Cameco and the Ministry of the Environment
23 soil sampling results, they weren't that far apart, but,
24 I think we can say generally MOE's sample results were
25 higher than Cameco's and I think that raises questions

1 and concerns as well.

2 Cameco reported in the CMD that during the
3 current licensing period there were three CNSC action
4 levels, all of which occurred in 2002. And we note that
5 in the CMD the numbers provided were 2002 through to 2005
6 in the tables that you saw in the supplementary CMD. We
7 have the numbers that go back a little earlier and it
8 shows a trend and a drop and then a slight trend.

9 Those weren't in the first CMD, but I
10 think that there are still issues around that rise that
11 we see in the 2002 to 2006 period and we do want to
12 acknowledge that there was a significant drop from 2000
13 to 2002 and that's all good. That doesn't remove our
14 concerns about an upward trend from 2002 to 2005.

15 There were 68 in total, 68 directives and
16 actions in the licensing period and that averages more
17 than one per month. That, to us, seems high.

18 We want to note that during the same
19 licensing period the BEIR-7 Report was issued affirming
20 that there's no safe threshold for radiation exposure.

21 And it's in this context that the 2006
22 application for renewal of Cameco's operating licence is
23 being reviewed and it's through the lens of the 2005
24 BEIR-7 Report that the CNSC must view Cameco's
25 environmental performance and the potential effect of

1 that very poor performance on human health and the
2 environment.

3 While the exposure and release levels may
4 have and may still meet the CNSC levels of acceptable
5 risk, in our view, they are unacceptable and viewed
6 through the lens of the BEIR-7 Report they're
7 unacceptable.

8 The CNSC should review both your own
9 evaluation criteria and the Cameco operations in light of
10 the BEIR-7 findings.

11 Finally, with respect to environmental
12 performance there is what we take to be a serious
13 misrepresentation of environmental performance. Cameco
14 reports, with the exception of TS, of the total suspended
15 solid excedents prior to 2003, the refinery continues to
16 satisfy MISA requirements with respect to all other
17 perimeters.

18 However, this is simply not the case. The
19 Minister of the Environment publishes online non-
20 compliance reports and indicated that in both January of
21 2004 and December 2003 the Cameco facility failed to meet
22 the acute lethality test for Daphnia which is one of the
23 standard MISA requirements.

24 We think this is a serious
25 misrepresentation and we would hope that the Commission

1 would also view this as a serious matter.

2 Two other notes before our comments with
3 respect to public consultation. We just want to note for
4 the Commission, as outlined in our submission of November
5 10, that we have concerns about the proposed changes to
6 waste management.

7 In particular, we have concern with what
8 we understand to be a proposal to start cutting up the
9 drums, applying some kind of a blaster to them to be able
10 to send the drums for recycling. We think this raises
11 real concerns about how workers will be protected from
12 dust with elevated uranium levels, how the dust will be
13 collected and contained, what's the projected increase in
14 dust emissions as a result of this new activity, how
15 would the decontamination of the metal be verified prior
16 to shipping offsite and how would chain of custody be
17 maintained? And none of that is outlined in the
18 document.

19 **THE CHAIRPERSON:** Ms. Lloyd, about a
20 minute left.

21 **MS. LLYOD:** About a minute left, very
22 good.

23 I will refer to you our submission for our
24 concerns with respect to the Blind River area
25 Environmental Monitoring Committee. The committee has

1 not met, perhaps since January 2005. I did have a
2 discussion with the Town Clerk earlier this week and
3 there are a number of difficulties there, but I think
4 that responsibility is being left with the town to make
5 this a go and I think that the Commission and the company
6 bear responsibility as well. There must be an active and
7 ongoing monitoring committee in place that can maintain
8 and build capacity and build an ability to actually
9 function with some oversight abilities with respect to
10 this facility.

11 In closing, I'll say that the five-year
12 application for a licence renewal is too long. There are
13 a number of activities that are being reviewed. We
14 strongly disagree and I want to go on the record as
15 saying we strongly disagree with the proposal to ship
16 waste from Port Hope to the Blind River facility.

17 I heard this morning that that proposal
18 has been approved. We understand that it will come back
19 to you as a licence amendment matter and we hope we'll
20 have the opportunity to speak to you on that matter at a
21 later date.

22 But the incinerator upgrade and the
23 expanded productions are both subject of separate
24 environmental assessments. They are both going to have
25 their outcomes within the next six to eight months. We

1 think that those outcomes should be part of a re-
2 licensing exercise. So we would really encourage you to
3 provide only a one-year licence at most, six months if
4 those EAs are going to be concluded within the very short
5 time period.

6 And then the licensing renewal can be done
7 in the context of those as givens rather than as
8 questions.

9 Your own licence period criteria states
10 that the licence period should take into account the
11 planning cycle of the facility and the licensee's plans
12 for any significant change in the licensed activity.

13 In our view, this criteria provides ample
14 guidance to the CNSC in determining the licence renewal
15 period. Cameco is planning two significant changes and
16 these should be fully examined during the review of a
17 licence application for the period during which those
18 changes would come into effect. That has not been the
19 case in this application, so we would urge a very short
20 licence renewal and allow those matters to be considered
21 in one licence examination.

22 Thank you.

23 **THE CHAIRPERSON:** Thank you, Ms. Lloyd.

24 We will now open the floor for questions
25 and I would like to start with Dr. Barnes, please.

1 **MEMBER BARNES:** Thank you, Madam Chair.

2 Just in the groundwater monitoring well
3 data, one of the issues you discuss, which is the main
4 variant, is the nitrates in groundwater, and you gave
5 two, as shown. This is covered in the text on page 16
6 and referenced in a figure on page 18, and you showed it
7 on one of your diagrams. And the reasons for that
8 increase in the last year were "natural variations" or
9 "analytical artefact".

10 So first question to Cameco. Why, in the
11 analytical methodologies that you use, could it be an
12 analytical artefact and what is the justification for
13 regarding it as natural variations?

14 **MR. DEGRAW:** For the record, Joe DeGraw.

15 The nitrate numbers in discussion with our
16 analytical lab because we do this analysis in-house.
17 They review the data and concluded that they saw no
18 reason why the data wasn't accurate. I guess initially
19 we were thinking perhaps there was a background issue
20 that because both the upstream and downstream numbers are
21 elevated, we thought perhaps there was a background
22 issue. So we asked the lab to check and validate, and
23 they confirmed that there's no indication that those
24 numbers are incorrect.

25 And because downstream/upstream we see no

1 Our fugitive emissions are about half of our total
2 emissions for the refinery. So we have plans for the
3 future to evaluate our HVAC emissions and look at trying
4 to reduce those levels further.

5 **MEMBER BARNES:** If I could deflect a
6 question back to Cameco that Ms. Lloyd asked for
7 Northwatch. You did report that the highest soil values
8 for uranium were at the fence line of four parts per
9 million or double background values.

10 Could you give the range of values as
11 opposed to just the average?

12 **MR. DEGRAW:** Joe DeGraw for the record.

13 I believe the range was provided in our
14 CMD. Yes, it was in our CMD, page 13, the range for each
15 year from 2002 to 2006. In 2006, the range was from 1
16 microgram per gram to 8.4 micrograms per gram. So it's
17 Table 1 in page 13.

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

19 You also address in your document a fire
20 hazard analysis, and I wondered if that analysis was
21 strictly within the property or since the property is
22 surrounded on most sides by bush or forest, whether you
23 had incorporated in that fire hazard analysis the threat
24 of forest fires, so external hazards?

25 **MR. ASTLES:** Chris Astles for the record.

1 The fire hazard analysis is based on the
2 NFP801 and it is on the facility itself. It does not
3 take into account the surrounding bush line.

4 **MEMBER BARNES:** Should it?

5 **MR. ASTLES:** I don't believe so. Because
6 of specific security requirements there is a sufficient
7 buffer zone there for a situation such as a fire.

8 **MEMBER BARNES:** Staff, are you satisfied
9 there is a sufficient buffer zone for this facility?
10 They show it in some of the photographs and also the very
11 close proximity of the wood lot is shown in the map that
12 follows page 12 of 12.

13 **MR. WERRY:** David Werry for the record.

14 Yes, staff is satisfied. There's
15 approximately 300 to 400 feet surrounding the actual
16 facility itself to where the wood lot area starts to
17 show.

18 **MEMBER BARNES:** Thanks

19 To Cameco; on that map that I just
20 referred to following page 12 of 12, you show the ponds
21 on site. Could you just refresh my memory of what
22 happens to the so-called pond water within those ponds?
23 What is the fate of that?

24 **MR. ASTLES:** Are you referring to the Day
25 One CMD?

1 **MEMBER BARNES:** No, I think it's in Day
2 Two material. It follows the Fire Toxicology Technical
3 Ministry of the Environment document, and in our
4 documents it's just ahead of your -- immediately before
5 your PowerPoint presentations.

6 **MR. ASTLES:** Chris Astles for the record.
7 You're referring to the effluent lagoons?

8 **MEMBER BARNES:** Right.

9 I would like to know what happens to those
10 effluent ---

11 **MR. ASTLES:** The lagoons themselves are
12 rubber-lined to protect any leakage from them and the
13 effluent, we collect it through the operating week and
14 discharge twice weekly. So we're monitoring the effluent
15 from the refinery out to the lagoons, and then once the
16 lagoons are full, then we re-sample the lagoon itself,
17 taking a composite, and then we discharge them to Lake
18 Huron. And as we're discharging, we're also taking a
19 composite discharge sample.

20 **MEMBER BARNES:** And how is that
21 discharged? Is it through the diffuser or is it a
22 separate system?

23 **MR. ASTLES:** No, it's through the
24 diffuser. There's a sump system to allow gravity flow
25 from the lagoon to the sump and then pumped out through

1 the diffuser into Lake Huron.

2 **MEMBER BARNES:** Okay. So my question to
3 staff again, the analytical monitoring that's
4 incorporated in the diffuser and some of that data is
5 reported to us, is that adequate to catch the effluent?

6 **MR. MCKEE:** Malcolm McKee for the record.

7 Yes, the lagoon itself is sampled as a
8 control prior to release and then there is sampling of
9 the actual material released, and then there has been
10 modelling of the performance of the diffuser and field
11 verification of the performance of the diffuser as well.

12 **MEMBER BARNES:** Thank you.

13 **THE CHAIRPERSON:** Mr. Harvey.

14 **MEMBER HARVEY:** Merci, madame la
15 présidente.

16 Regarding the fire protection, the
17 proposed renewal will provide a transitional period for
18 some points, and I would like to know how long will last
19 the fire hazard analysis, which will have to be
20 submitted, I suppose, to the staff and then analyzed by
21 the staff. How long will take all that process just in
22 order to see that the proposed date to respect the Code
23 will be a good target?

24 **MR. ASTLES:** With regards to the fire
25 hazard -- Chris Astles for the record.

1 With regards to the fire hazard analysis
2 we did meet with the CNSC staff to review a proposed
3 plan. In 2002 Cameco did undertake a Fire Hazard
4 Analysis based on NFPA-801 and our next step is to update
5 that FHA and the target for that is June 30th, 2007 with a
6 submission to the CNSC with an action plan which is to be
7 submitted by September 1st.

8 **MEMBER HARVEY:** Could the staff comment on
9 that?

10 **MR. RABSKI:** Henry Rabski for the record.

11 As indicated in our CMD, we discussed the
12 action plan, the provision for a transition period with
13 the licensee. Based on the work that they have
14 previously done on hazard analysis, we feel that the
15 target dates are reasonable and this will ensure that
16 compliance will be achieved within that transition
17 period.

18 **MEMBER HARVEY:** Thank you.

19 I would like, well, to have the comments
20 of Cameco on the comments of Northwatch of Northwatch's
21 interpretation of Tables 2, 3 and 4 suggesting that doses
22 are increased with the time and that the performance of
23 Cameco is not what is written in your submission.

24 **MR. DEGRAW:** Joe DeGraw for the record.

25 I believe those tables are from the Day

1 One CMD?

2 **MEMBER HARVEY:** Yes, that's correct.

3 **MR. DEGRAW:** That's correct, yes.

4 Yes, for example, Table 3, basically our
5 average doses are remaining at a very tight band from
6 year to year. There is -- we don't see a change per se,
7 although obviously we track that so we don't see an
8 increase per se and, obviously, we adhere to the ALARA
9 principle of keeping doses as low as we reasonably can,
10 as reasonably achievable.

11 With respect to skin exposures, which I
12 believe was another comment, I believe that the highest
13 value reported was only at 4 percent of the allowable
14 limit. So while it was certainly higher than the
15 average, it was still well below regulatory limits.

16 **MEMBER HARVEY:** Thank you.

17 **THE CHAIRPERSON:** Perhaps while we're on
18 that matter though, could Cameco reconcile their comments
19 with the ALARA principle and then ask for staff comments,
20 if you agree, Mr. Harvey, on that specific comment. You
21 talked about it as a percentage of regulatory limits but
22 how exactly are you addressing ALARA within that, and
23 then ask staff to do the same.

24 **MR. DEGRAW:** Joe DeGraw for the record.

25 We have -- in addition to the regulatory

1 limits there are CNSC action levels for these type of
2 parameters and in addition to those action levels Cameco
3 has lower administrative limits where we will take action
4 ourselves, hopefully before something reaches an action
5 level. So we do have a number of internal triggers so we
6 can -- and we do also set annual targets for reducing
7 emissions and we identify sort of key areas that we want
8 to focus on if issues come up. We look at what happened,
9 obviously, and what can we do to reduce or mitigate that
10 from happening again.

11 **MR. HOWDEN:** Barclay Howden speaking.

12 We have reviewed their RP program and
13 these doses come out on a yearly basis with respect to
14 that. So I'm going to ask Cherry Gunning, our Radiation
15 Protection Specialist, to provide further commentary.

16 **MS. GUNNING:** For the record, my name is
17 Cherry Gunning.

18 With regard to doses at Blind River, their
19 effective dose -- the limit for effective dose is 50
20 milliSieverts per year and 100 in 5 years. So their
21 average range from 2.5 to 3.4. They did have some
22 elevated maximum values which were due to two lung
23 intakes that were reported as action level exceedences.
24 So we don't have -- we only have two years' data on
25 effective dose. We don't really have a comment on trend

1 for that.

2 For the urine dose the average was .1
3 milliSieverts per year and the maximum values range from
4 1.7 to 2.8 and we feel that trend is stable. The lung
5 dose -- the average dose range from .8 to 1.8
6 milliSieverts and the average dose trend we would
7 consider to be stable. But with lung dose we did --
8 there were two large intakes over the licence period
9 which would affect the range of the maximum dose which
10 was 8.1 to 17.9. With the 2006 sampling, lung counting
11 there were no large intakes reported.

12 The gamma dose range from 1.3 to 1.6 and
13 we would consider that to be a stable trend. The maximum
14 dose ranging from 7.4 to 13.1 -- the maximum dose was
15 lower for 2004 and 2005 which could be an indication of
16 some engineering changes that CAMECO made in their
17 raffinate area but -- because I'm like Miss Lloyd -- not
18 going to give them the benefit of the doubt until I see
19 that extended further into the future.

20 And we consider that Cameco do have
21 targets on their dose and they do have an ALARA program
22 so we consider these doses to be ALARA.

23 **THE CHAIRPERSON:** Have any staff come to
24 talk to you or given the staff of CNSC any reason to show
25 that staff are concerned about this in terms of

1 communications or the actual levels?

2 **MR. WERRY:** David Werry for the record.

3 During the typical inspection, in addition
4 to looking at the facility, I take the opportunity to
5 talk to staff. There is also an announcement prior to me
6 being there so Cameco staff is aware that the CNSC will
7 be coming onboard.

8 No, I have not been approached
9 specifically in regards to that or any other matter and
10 when I have tried to prompt the question, Cameco's staff
11 is very, very pleased and happy with the level of worker
12 protection that they are afforded.

13 **THE CHAIRPERSON:** Dr. Dosman.

14 **MEMBER DOSMAN:** Thank you, Madam Chair.

15 I'd like to ask Cameco on the issue of the
16 status of the lung counting dose data, what is the
17 problem in getting this data out that -- this was
18 discussed on Day One and we'd appreciate some update.

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

20 I could give sort of a broad overview of
21 this.

22 Essentially, the difference here is
23 converting from what I would call a lung counting year to
24 a calendar year, very similar sort of to a fiscal year
25 versus a calendar year as well. Typically, lung counting

1 is done in September. So what we were doing was
2 basically refining the data to put it onto a calendar
3 year rather than from lung count to lung count.

4 Over a five-year period you can imagine
5 this isn't material, but for any given year of course it
6 can change the numbers. Our estimate would be that the
7 maximum change that you would see in any of these numbers
8 would be in the range of 1 to 2 milliSieverts with the
9 average being, of course, much, much less.

10 What precipitated this largely was the
11 application for a dosimetry licence and in that we were
12 seeking to take the analysis and making it more automatic
13 than a manual system that it was. We estimated that the
14 time it would take to make to automate this, and I think
15 we have obviously underestimated the time to do that. In
16 the long run, I think we'll have a much better system,
17 but it has taken longer than we thought in order to
18 convert it over to a calendar year basis.

19 **MEMBER DOSMAN:** Madam Chair, may I
20 continue in this line of questioning?

21 So is the problem, then, the sheer volume
22 of data or is there a problem with -- in the CMD on page
23 28 of 29 the issue of accuracy was brought up. Is there
24 a problem in calculating the dosages or what is the real
25 problem?

1 **MR. JARRELL:** John Jarrell for the record.
2 I say basically it's the large volume of
3 data that we're processing.

4 **MEMBER DOSMAN:** May I ask is the company
5 concerned? Are there any values that are outliers, if
6 you like that are difficult to interpret? Is that part
7 of the reason for the delay in processing the data?

8 **MR. JARRELL:** John Jarrell, for the
9 record.

10 No, I think it's just the volume of the
11 work and as I indicated, essentially all we're -- over a
12 five year period, this is not material but it is
13 significant from the point of view of an individual
14 calendar year. We want to make sure the data is accurate
15 before we publish it.

16 **MEMBER DOSMAN:** How are you finding the
17 correlation between lung counts and urine counts?

18 **MR. DEGRAW:** Joe DeGraw, for the record.

19 Again, without having seen the final data,
20 based on data we had seen in the early days, there's not
21 always a clear correlation between urine and lung and
22 that, in part, is due to the different solubility
23 materials we process at the site. Some of them will stay
24 in the lung for a fairly extended period of time and
25 other ones are much more soluble and will pass through

1 the body fairly quickly and be reflected in the urine.
2 So I wouldn't say that there's a clear trend although in
3 individual circumstances, it's possible.

4 **MEMBER DOSMAN:** Is there a tendency for
5 lung counts to be somewhat higher than urine counts?

6 **MR. DEGRAW:** Joe DeGraw, again.

7 It's a totally different analysis, so
8 they're totally different. The urine numbers we're
9 reporting on in the order of parts per billion, in urine
10 -- uranium in urine. The lung counter will give us a
11 result in milligrams of uranium that we have to convert
12 into a dose number.

13 **MEMBER DOSMAN:** So are you confident that
14 the lung counts are being performed accurately and
15 dependably and reproducibly?

16 **MR. DEGRAW:** Yes.

17 **MEMBER DOSMAN:** I have another question.
18 What happens -- is the company aware -- what would happen
19 to the counts, for example, if a worker had a medical
20 condition such as asthma or so on; are you aware of
21 whether such a condition would affect the counts?

22 **MR. DEGRAW:** Joe DeGraw, for the record.

23 I do not believe asthma would affect it.
24 Something that would affect the counts -- and many years
25 ago, it happened once. If somebody had a medical

1 treatment involving, for example, a radioactive injection
2 of radioactive tracer, we would want to know that before
3 we lung counted that person. That did happen once many
4 years ago, and until we realized that the person had a
5 tracer in him, we weren't sure. So we make sure that
6 nobody has had a medical -- some injection of radioactive
7 material because that obviously will bias the results.

8 But other than that, there's no medical
9 condition per se that would affect the lung count results
10 that we're aware of.

11 **MEMBER DOSMAN:** In the context of the
12 licensing procedure, what's your forecast on the
13 availability of the lung count dose data in time?

14 **MR. DEGRAW:** Joe DeGraw, for the record.

15 I've been talking with the people that are
16 working on this at Cameco a couple times a week for the
17 last number of weeks because, like I say, up until a few
18 weeks ago, we were still optimistic that we would have
19 the data available to present. So we're hopeful it will
20 be available if not just before Christmas, certainly very
21 early in the new year. And then we will prepare
22 something to submit to staff.

23 **MEMBER DOSMAN:** Madam Chair, may I ask
24 staff; do you have any views on the availability of the
25 lung count data and the reliability of the lung counting?

1 **MR. HOWDEN:** Barclay Howden speaking. I'm
2 going to ask Cherry Gunning to comment on the reliability
3 in just a moment.

4 I just want to make the comment; from the
5 staff perspective is that when the data is available, we
6 will be reviewing it as part of our ongoing compliance
7 program. And just to give you an idea of importance, Dr.
8 Dosman, we see this as very important because following
9 the introduction of the NSCA in 2000, this was
10 transitioned as a very important component for facilities
11 such as this, so we could get a proper effect of dose for
12 people.

13 So I just wanted to give you an idea of
14 our high priority we're placing on this particular issue.

15 Now, I'd like to ask Ms. Gunning to
16 comment on the reliability.

17 **MS. GUNNING:** Cherry Gunning, for the
18 record.

19 In determining lung dose there's sort of
20 three processes that are involved. The first is actually
21 doing a count with the lung counter. The second is
22 interpreting the spectra and determining how much uranium
23 is in the lung. Both of those processes are well
24 developed and there's a good understanding.

25 Since 2003, since April of 2003, when they

1 began internal dosimetry, there's been a lot of work on
2 interpreting what that burden to the lung means in
3 respect to dose. So there were two years of data where a
4 dose was assigned, but because of the refinement in their
5 curves and their understanding of the dosimetry, learning
6 from experience, this is where Cameco's been doing a lot
7 of work and based on their findings, they are
8 reinterpreting data now, which is the exercise that we're
9 talking about here.

10 So they do have an understanding of what
11 kind of burden is going to the workers' lungs. And they
12 do have an understanding of what kind of doses the
13 workers are getting. But now there's a refinement to
14 what year they're going to apportion it to, what do you
15 do when somebody has a long-term absence and, you know,
16 sort of the exceptions.

17 So the data is reliable. We're looking
18 forward to having that -- receiving it early in the New
19 Year.

20 I would also remind the Commission that
21 Cameco has applied for a dosimetry licence for the lung
22 counting. We have reviewed the application documents and
23 requested further information which we'll expect to hear
24 from Cameco probably early in the New Year. We're hoping
25 to do site visits in both Port Hope and Blind River,

1 possibly in the first quarter of next year, leading up to
2 licensing the dosimetry service.

3 **MEMBER DOSMAN:** I do have one or two other
4 questions on this topic. With your permission, I would
5 ask them.

6 **THE CHAIRPERSON:** Yes, on the same topic
7 that would be fine.

8 **MEMBER DOSMAN:** Thank you.

9 In your view, in CNSC staff's view, is the
10 sequence of lung counting appropriate? The time of
11 September was discussed and so on. Is that -- are the
12 number of counts per year and so on appropriate to
13 evaluating the overall dose and monitoring that dose?

14 **MS. GUNNING:** Cherry Gunning, for the
15 record.

16 Yes, we think that's appropriate.

17 **MEMBER DOSMAN:** Thank you, Madam Chair.

18 I have one or two other questions, but I'd
19 be prepared to pass on this round.

20 **THE CHAIRPERSON:** Why don't you finish
21 your questions now, Dr. Dosman, and then we'll pass to
22 our colleagues.

23 **MEMBER DOSMAN:** I have another question on
24 the issue of radiation protection. On page 12 of 29 of
25 the Cameco document, there's a discussion of an

1 additional outstanding issue on the area of radiation
2 protection.

3 I wonder if I could ask Cameco to comment
4 on that issue?

5 **MR. DEGRAW:** Joe DeGraw, for the record.

6 Yes, the one action that's outstanding
7 from the most recent staff radiation protection
8 inspection is related to the need to do an annual
9 assessment of the Respirator Program. And the reason
10 it's open is we obviously can't do that until the end of
11 the calendar year, so that will be done early in 2007.
12 It's an annual review of the overall effectiveness of the
13 Respirator Program.

14 **MEMBER DOSMAN:** Thank you.

15 Could staff please comment on this issue?

16 **MS. GUNNING:** Cherry Gunning, for the
17 record.

18 That's correct. We are asking Cameco to
19 do an annual review of their Respirator Protection
20 Program and we have indicated that it would be
21 satisfactory to submit that in their annual report which
22 we'll receive at the end of March.

23 **MEMBER DOSMAN:** Thank you.

24 **THE CHAIRPERSON:** Dr. McDill.

25 **MEMBER McDILL:** Pardon me.

1 Several questions: The first is in CMD
2 H20.B, on page 3. It's the issue of design control and I
3 wonder if Cameco could spend a few minutes explaining how
4 they're going to deal with the issues of -- I guess this
5 would be the engineering change process.

6 **MR. ASTLES:** Chris Astles, for the record.

7 This was brought up as part of the QA
8 audit that was conducted by the CNSC. The design control
9 we're implementing is part of our change control process
10 with the proper documentation, collecting of the data
11 prior to the design or as part of the design, part of the
12 construction and installation and then post-design data.

13 As well, once the -- if there was a piece
14 of machinery or something that was installed, to make
15 sure it's operating as per design, as well as what other
16 changes may be required to achieve that objective.

17 **MEMBER McDILL:** Do you have a timeframe?

18 **MR. ASTLES:** We're currently working on a
19 design control procedure here and at the refinery and
20 it's -- with regards to projects that are ongoing now, we
21 are doing the detailed design control process and
22 preparing the documentation as we proceed.

23 **MEMBER McDILL:** Thank you.

24 Could staff comment on that?

25 **MR. HOWDEN:** Barclay Howden speaking.

1 I'd like to ask Peter Schultz, our Quality
2 Management Specialist, to comment.

3 **MR. SCHULTZ:** Peter Schultz, for the
4 record.

5 We haven't gotten a response back from the
6 audit yet. So I'm not sure what they're doing, but the
7 issues are as he explained.

8 **MEMBER McDILL:** Thank you.

9 My second question is first to Cameco and
10 then to staff, and it's a comment made by Northwatch.

11 Could you discuss the significance of the
12 reference to two times background level and the
13 significance of that in terms of health and safety, and
14 then answer their comment that the MOE values appear to
15 be higher than yours, and then -- Cameco and then staff.

16 **MR. DEGRAW:** Joe DeGraw, for the record.

17 Yes, the soil results immediately outside
18 the fenced line are basically roughly twice what the
19 background is for the area. However, as we indicated in
20 our CMD, based on the last five years, there is certainly
21 no increasing trend.

22 Most of that was done in -- most of that
23 occurred in the earlier years of the refinery operation.
24 In recent years, there's no evidence of an ongoing
25 accumulation or increase of that, but the numbers are, on

1 average, roughly twice -- twice background.

2 **MEMBER McDILL:** And with respect to the
3 MOE?

4 **MR. DEGRAW:** Sorry.

5 And the MOE numbers, we've looked at the
6 MOE numbers and, earlier this year, we actually provided
7 staff with a report comparing our data and the MOEs, and
8 in some cases, the MOE numbers are slightly higher,
9 although we don't consider them significantly higher. I
10 mean we're measuring in a part per million range and we
11 are using slightly different analytical techniques. So
12 there will be a little bit of variation there, but we
13 certainly consider them, our results and the MOE results,
14 to be aligned. We don't see any differences.

15 **MEMBER McDILL:** Thank you, staff, and is
16 MOE here?

17 **THE CHAIRPERSON:** I understand that there
18 are some representatives from MOE here. I wonder if you
19 could -- if they could just come up and sit to our left,
20 to your right here?

21 Thank you very much for coming.

22 And back to Dr. McDill.

23 **MEMBER McDILL:** Thank you. I'll ask staff
24 to comment and then MOE, please.

25 **MR. HOWDEN:** Barclay Howden speaking.

1 I'm going to ask Malcolm McKee to comment.
2 If you need more details, we have Michael Ilin, our
3 specialist, who is here, but I'm going to ask Malcolm to
4 comment first.

5 **MR. MCKEE:** With respect to the risks
6 associated with the actual measurements that are roughly
7 twice background, traditionally 300 micrograms per gram
8 is what's being used as a level of phytotoxicity at the
9 primary screening level. The CNSC, through some recent
10 research projects we've been funding, now utilizes 100
11 micrograms per gram, far more sensitive in soil and
12 vertebrates.

13 So the actual numbers themselves are well
14 below any risk quotients.

15 **MEMBER McDILL:** And to comment on MOE
16 versus Cameco?

17 **MR. HOWDEN:** Barclay Howden speaking.
18 I'm going to ask Michael Ilin to comment
19 on that.

20 **MR. ILIN:** Michael Ilin, for the record.
21 CNSC staff had the opportunity to review
22 both Cameco and Ministry of Environment's monitoring
23 program in the vicinity of the Blind River facility and
24 it's our understanding that the design of the problem is
25 quite different. The locations of monitoring stations

1 located in -- are not the same locations. That's why
2 there is a certain possibility of some difference between
3 the results.

4 However, the monitoring stations cover the
5 area of interest including the predominant wind
6 directions, including the prevalent soil types and
7 vegetation types, as well as the proximity to the
8 critical replications.

9 Thank you.

10 **MEMBER McDILL:** Thank you.

11 MOE?

12 **THE CHAIRPERSON:** And just for the full
13 name, Ministry of Environment of Ontario.

14 Thank you.

15 **MR. STEWART:** Thanks very much. My name
16 is Rod Stewart. I'm the District Supervisor with the
17 Ontario Ministry of the Environment in Sault Ste Marie.

18 I am joined here today by Mr. Ron Dorscht
19 who is the Senior Environmental Officer who is
20 responsible for Ontario's Environmental Compliance and
21 Inspection Audit Program at Cameco. He is here to assist
22 me with data and other information as the Board or the
23 Chair may wish.

24 In respect to comments related to numbers
25 being higher, lower or otherwise different, we have to

1 take into consideration that the prime difference between
2 the numbers we experienced and those experienced at
3 Cameco has to do with sample location as the primary
4 difference.

5 The laboratory techniques are slightly
6 different. On average, the numbers -- although I don't
7 typically like to use average -- the numbers aren't
8 terribly different. Our numbers do show higher values
9 but, again, not at a significantly higher risk or alarm
10 rate within our opinion.

11 Do you have any other comments to that,
12 Ron?

13 **MR. DORSCHT:** No. Ron Dorscht.

14 No other comments.

15 **MEMBER McDILL:** I guess the question then
16 would be is it MOE's opinion, the Ministry's opinion that
17 the two different analytical methods and the different
18 locations essentially sustain one another or validate one
19 another?

20 **MR. STEWART:** Rod Stewart again, for the
21 record.

22 We're looking at long-term trends and when
23 we look at the data, it's not unusual to look at them as
24 different data sets and not try and compare numbers to
25 numbers. So our long-term program is looking at changes

1 to background and sort of Ontario typical ranges in the
2 area. And to date, although there is an increase on the
3 property itself, there is still no indication that off-
4 site properties are impacted in a substantial way.

5 Again, I'm going to pass to Ron if he has
6 any further comment.

7 **MR. DORSCHT:** Ron Dorscht.

8 I guess I don't know if there has actually
9 been a review by our phytotoxicology section a comparison
10 of the two data sets, like our Ministry data versus
11 company data.

12 **MEMBER MCDILL:** Can I pass that to staff
13 and then to Cameco to comment?

14 **MR. HOWDEN:** Barclay Howden speaking.

15 I'm going to ask Michael Ilin to comment
16 on that.

17 **MR. ILIN:** Michael Ilin, for the record.

18 It's CNSC staff understanding that there
19 is a certain possibility of the variations in the
20 concentrations, especially assuming the difference in
21 technique, for example. Some models require different
22 layers that need to be sampled in terms of determining --
23 or for example, in proof of accuracy of the modelling.
24 So basically, if someone would sample the top one
25 centimetre or top five centimetres, or top 15 centimetres

1 of the soil, they would basically get the different
2 results.

3 Due to natural processes that are going on
4 in the soils, it's CNSC staff's expectations that due to
5 the decreasing trend in the Blind River facility
6 emissions, there would be the same trend in the --
7 decreasing trend in the uranium concentrations in the
8 future.

9 Thank you.

10 **MEMBER McDILL:** And Cameco?

11 **MR. DEGRAW:** Joe DeGraw.

12 I think the only other thing I could add
13 is, again, we -- some of our sites were set up pre-
14 operational 25-odd years ago and we've continued to
15 sample at those locations so we have history. We can go
16 back and compare things and, like I say, when the
17 Ministry established their programs, some of the sites
18 were in close proximity to ours; other ones weren't.

19 So there is some difference in sample
20 locations, which will obviously affect when you're
21 reporting average results, obviously affect that.

22 **MEMBER McDILL:** Thank you.

23 I have one more question of public
24 consultation but it can go to the next round. You have
25 questions.

1 **THE CHAIRPERSON:** Sorry. All I was going
2 to say is I think that neither the staff, Dr. McDill nor
3 the licensee really addressed the comment that was made
4 by the Ministry of the Environment.

5 Is there a need -- have they compared the
6 two methods or have -- and if you have, what has that
7 resulted in? And if you haven't, do you think it's
8 necessary?

9 That was really I think the comment that
10 we wanted to drag -- we wanted to get down to.

11 **MR. DEGRAW:** Joe DeGraw, for the record.

12 If you're referring to the sampling
13 techniques, yes, we basically sample in the same way.
14 Actually, when the Ministry comes onsite to sample, we
15 often -- I shouldn't say often -- we actually, now, all
16 the time accompany them like again, they collect their
17 samples and we either collect our samples side by side or
18 in some years, I believe, we've split a sample. So we're
19 basically sampling from the same location for the
20 ministry so that we have comparisons in that way.

21 So the sampling technique is basically the
22 same, I believe, between us and the Ministry.

23 **THE CHAIRPERSON:** What I understood was
24 that the analysis technique was different, not the
25 sampling technique.

1 **MR. DEGRAW:** Yes, that is correct. And
2 the analysis technique is different but, again, I don't
3 believe that's a significant factor in these differences,
4 but it is a different technique. You are correct.

5 **THE CHAIRPERSON:** Any comment from staff?

6 **MR. ILIN:** Michael Ilin for the record.

7 CNSC staff considered the difference
8 between two methods being not really significant. If you
9 compare the maximum concentrations measured in the CNSC
10 Blind River Facility both by Cameco and Ministry of
11 Environment they are approximately in the same range of
12 numbers. For example, Cameco has authenticated the
13 maximum concentration around 9.9 ppm and MOE
14 concentrations measured in 2001 was 10.1 which is --
15 could be considered just like kind of -- this
16 significance is negligible.

17 Thank you.

18 **THE CHAIRPERSON:** Back to you, Dr. McDill.

19 **MEMBER MCDILL:** Thank you.

20 My last question is on public
21 consultation. I'd like staff and comment to -- the staff
22 at Cameco to comment on the Environment Committee that's
23 been struck in Blind River and when it's meeting and not
24 meeting and whether staff has a role to play there.

25 **MR. HOWDEN:** Barclay Howden speaking.

1 With regards to this committee, I don't
2 believe we have a role, an active role to play, perhaps a
3 role to provide information. The CNSC does have an
4 outreach program that we have exercised in the north
5 there more recently, in Elliot Lake as opposed to Blind
6 River.

7 But in terms of -- this is a community
8 committee and I think it's very important that it's the
9 community, we look at it from the standpoint of a public
10 information program. But I don't think we have a role,
11 an active role, except to make sure that our information
12 is available that the Committee can consider it.

13 **MEMBER McDILL:** Cameco.

14 **Mr. ASTLES:** Chris Astles for the record.

15 The BRAEMC was established by the town
16 council in December of 1983. Its purpose was to review
17 and report and comment on available environmental data
18 from Eldorado, which is now Cameco, and the CNSC of
19 course and other federal or provincial agencies. The
20 current membership consists of town volunteers, the
21 mayor, representatives from Mississagi First Nation and
22 two local communities which are Huron Shores in Thompson
23 Township. They meet at a frequency set by the BRAEMC.

24 We are constantly communicating with the
25 town itself in providing the information to the members,

1 such as the quarterly reports. Currently, we're only
2 meeting once or twice a year based on the availability of
3 the members. The members are purely volunteers of the
4 community and Cameco does not now or at any time as we
5 ever provided financial support for them.

6 **MEMBER MCDILL:** Is staff satisfied with
7 that level of public consultation in that matter?

8 **MR. HOWDEN:** Barclay Howden speaking.

9 We have assessed their Public Information
10 Program and we have come to the conclusion that --
11 against the guidelines, that it does meet it.

12 **THE CHAIRPERSON:** Is there any reason why
13 Northwatch wouldn't be included in that program or if
14 that committee exists? Who would invite Northwatch or
15 other interested parties to take part in that committee?

16 **MR. ASTLES:** Chris Astles for the record.

17 The committee itself is run by the town
18 and I guess they looked at local representation and I
19 don't know if they have ever approached Northwatch to
20 participate due to where they are located.

21 **THE CHAIRPERSON:** Miss Lloyd, have you
22 ever been invited to take part in the committee?

23 **MS. LLOYD:** No, we haven't been invited to
24 participate in the committee and we haven't asked to
25 participate in the committee. In our view, while we

1 would certainly be pleased to provide a support role or
2 participate through some of our local members, we have a
3 number of members in that area.

4 In our view, the greater emphasis needs to
5 be placed on having a functioning ongoing local
6 monitoring committee. We think Cameco does have a role
7 to play in providing some financial support to allow that
8 committee, assuming it's going to be up and running
9 again, allow that committee to retain some independent
10 expertise to assist them in reviewing the documents,
11 reviewing the information that's placed before them.

12 As a public interest organization we find
13 it challenging and we expect that the Public Monitoring
14 Committee would also find it challenging and it's
15 important to have that third party view. We have spoken
16 with the town very recently and my sense from the town
17 clerk is that it's more work for them to do and it hasn't
18 met for a long time and they'd like it to happen but
19 maybe next year.

20 **THE CHAIRPERSON:** Thank you very much.

21 Mr. Graham, sorry to take so long -- it's
22 your turn, sir.

23 **MEMBER GRAHAM:** No, thank you very much,
24 Madam Chair.

25 A couple of questions that I have; the

1 first one pertains to training and training of staff. I
2 think we learned this morning in the presentation that in
3 the Type 1 inspection and I understood that only one item
4 will last longer, will go out longer than the one year
5 and that's the training item. Is that correct? That's
6 to Cameco first.

7 **MR. ASTLES:** Chris Astles for the record.

8 The training audit that took place
9 requires the implementation of a SAT, strategic approach
10 to training -- systematic approach to training, and it's
11 a long process developing the job task analysis, the risk
12 analysis; the training programs and procedures.

13 So it's a program we are undertaking and
14 we have responded back to the CNSC with regards to our
15 implementation of the plan with the progress we expect to
16 see.

17 **MEMBER GRAHAM:** The reason I ask the
18 question is that training seems to be one of the most
19 important elements of a licence, is a well-trained staff,
20 and in reading some of the action levels and so on, they
21 all involve perhaps lack of training or not all of them,
22 but a lot of them involve lack of training, exposures and
23 so on by operators and millwrights and so on. And I'm
24 wondering, would you comment with regard to is that a
25 trend that is a necessity that this training be done

1 prudently and as quickly as possible?

2 **MR. ASTLES:** Chris Astles for the record.

3 I guess from our perspective we have taken
4 the training process -- programs quite seriously. Last
5 year we did create a specific training department with a
6 staff of five people now. We are estimating 200 to 300
7 hours per year per employee for training activities in
8 classroom hands-on; training activities such as that.

9 So we are taking it quite seriously. With
10 regards to the exposures or dose levels that we're
11 seeing, we didn't relate them to a lack of training at
12 the time.

13 **MEMBER GRAHAM:** Does CNSC care to comment
14 with regard to the level of training that is in place at
15 the time -- now and the Type 1 inspection in which
16 documentation is still going to take more than a year to
17 produce and so on and get agreement?

18 **MR. HOWDEN:** Barclay Howden speaking.

19 I'm going to ask Martin Vesely, our
20 Training Specialist, to comment, and I'd just like to
21 give a couple introductory remarks.

22 One is, CNSC, as you're aware, has been
23 pushing very hard systematic approach to training across
24 all our licensees. And one of the reasons for that --
25 well, there's two reasons for that, is even though many

1 of the licensees have experienced staff, they have gone
2 through primarily on-the-job training, but as time goes
3 on, a systematic approach gives you more assurance which
4 adds to the defence and depth.

5 And for this particular facility, as I
6 think was discussed on Day One, there has been quite a
7 few new employees coming in the door and the experience
8 will be going out the door with retirements. So it
9 really emphasized the importance of systematic approach.

10 So I'm going to ask Martin Vesely to
11 comment on the training program that exists and where we
12 expect it to go and our thoughts on the timing.

13 **MR. VESELY:** Martin Vesely for the record.
14 I'm a Training Program Evaluation Officer in the Training
15 Program Evaluation Division.

16 With respect to the current training
17 program that Cameco has in place, it does in fact meet
18 the regulations and pertinent licence requirements. That
19 being said, as Mr. Howden alluded to, the current train
20 of thought is for Cameco -- and Cameco has committed to
21 implementing a formal systematic approach to training.
22 This, if anything else, adds, as we discussed, an
23 additional defence and depth and quality assurance
24 criteria to the current training program but it's CNSC
25 staff's view that the current training program is

1 adequate and as it progresses through these onerous steps
2 towards achieving systematic approach to training, will
3 just increase the quality of training onsite.

4 **MEMBER GRAHAM:** My question, second
5 question on this line is to CNSC staff with regard to the
6 fact that there's nearly 30 percent increase or new staff
7 out of the complement. I think on Day One we heard it
8 went from 100 to 135 or something like in hiring and so
9 on, or thereabouts.

10 Are the new staff getting the adequate
11 training that -- are you confident that the new staff are
12 getting the adequate training that is necessary to work
13 in a facility of this and to go forward in a new licence
14 application?

15 **MR. HOWDEN:** Barclay Howden speaking.

16 I'm going to ask Mr. Vesely to comment on
17 that again because he has reviewed the training program
18 that the new staff would be seeing.

19 **MR. VESELEY:** Marin Vesely for the record.

20 Yes, staff is satisfied that the new hires
21 will be getting an adequate level of training. And it
22 should be added that as this progression to a systemic
23 approach to training progresses and CNSC staff will be
24 monitoring it, that training does have an inherent
25 feedback loop and the training will be continually

1 improving.

2 **MEMBER GRAHAM:** Would Cameco care to
3 comment any further with regard to their training
4 programs?

5 **MR. ROGERS:** This is Terry Rogers for the
6 record.

7 Mr. Graham, I think it's fair to say that
8 at all operating sites training has never been a second
9 priority. Training has always taken place; new hired
10 training to make sure that the employees perform their
11 tasks safety and efficiently. But the focus is on
12 training and that has never really been an issue.

13 The systematic approach to training is a
14 corporate-wide initiative. It will tie to -- you know
15 it's not just for Blind River but it will tie all the
16 employees in the Cameco system to a common reporting
17 database which is -- we're implementing SAP, for
18 instance, and this will ultimately report to that.

19 So it's kind of complex in its
20 implementation but there's a team of people working in
21 Saskatoon specifically with the sites on systematic
22 approach to training and its application at all the
23 licence sites.

24 **MEMBER GRAHAM:** Thank you.

25 I have two other questions, Madam Chair.

1 Just for an information item regarding the Northwatch's
2 question with regard to the cutting of drums, how workers
3 are protected and how is the environment protected.

4 My question is to CNSC staff; are you
5 satisfied that the process that's being proposed meets
6 both the environmental and safety to workers requirements
7 in this process?

8 **MR. WERRY:** David Werry for the record.

9 As a bit of background to provide some
10 more description to that, one of the things that I look
11 at when onsite is this is a relatively new installation.
12 Prior to the new installation we go through a hazardous
13 or a "Haz-Op" hazardous review of what would take place.
14 I requested to see that prior to the installation for
15 staff to be able to comment on that.

16 Similarly, along with that when we visit
17 the site it's totally enclosed within the plant site.
18 The materials are collected and the operators are trained
19 and provided with protection in order to ensure that
20 their health and safety, as well as the health and safety
21 of other workers within the site are enclosed.

22 The staff is satisfied with the level of
23 protection that Cameco has put towards this.

24 **MEMBER GRAHAM:** Does Cameco have anything
25 to add to that, for the benefit of Northwatch's

1 intervention?

2 **MR. ASTLES:** Chris Astles for the record.

3 Yes, the drum counting circuit we've
4 installed is a robotic system to eliminate the employee
5 interface with the actual drums themselves, the cutting
6 process.

7 With any installation of robotics there's
8 a Ministry of Ontario labour standard. You have to
9 follow through with a pre-start plan by a third party
10 review which our consultant -- with Cameco -- and the
11 engineering party did undertake to verify all the
12 interlocks and safety features were built into the
13 system.

14 We also did a CNSC -- the Haz-Op analysis
15 of this, as well as a pre-start plan. We've ensured the
16 system is hooked up to proper dust collection to ensure
17 dust removal. We've also done the Fire Hazard Analysis
18 of the system to make sure there's proper fire protection
19 from the process itself.

20 **MEMBER GRAHAM:** Thank you.

21 I have one further question, Madam Chair,
22 and that is to CNSC staff.

23 With regard to the financial guarantees
24 and PDP we -- in Day One we saw and it was mentioned
25 again this morning, the increase from the existing

1 financial guarantee that was in place to increase this
2 to, I believe 32 million. We also know that pending
3 licence approval, pending various steps along the
4 processes, along the way, licence applications, that
5 there will be changes to the facility if the Commission
6 sees fit.

7 My question is, though, is based on the
8 licence today; based on the facility today as we know it.
9 Is it not prudent to at least put the 32 million in place
10 as a financial guarantee until such time as other PDPs
11 come forward and other modifications come forward to the
12 facility?

13 **MR. HOWDEN:** Barclay Howden speaking.

14 That's certainly an option that's
15 available, Mr. Graham. But from our point of view the
16 PDP is getting close and such that we expect that within
17 the next few months we will be able to bring a financial
18 guarantee, an accurate one, to the Commission for our
19 hearing. So it would be a case of we'd have to come back
20 again.

21 From our point of view this licensee, with
22 its previous financial guarantees, has guaranteed the
23 money through a letter of credit. There's never been any
24 problem and we're not aware of any potential financial
25 liabilities that might be posed by this particular

1 company that would not allow them to secure the 32
2 million or whatever the final number is going to be.

3 So from our perspective, from a liability
4 risk perspective we see it as very low at this moment and
5 that's why we're not recommending that to the Commission.

6 Again, our expectation is that in a few
7 months we'll come forward to you with a properly accepted
8 PDP and with a number that is accurate with contingency
9 that you can have confidence in. But right now we do not
10 see the risk as being high and therefore that's why we're
11 not progressing with a recommendation to you at this
12 time.

13 **MEMBER GRAHAM:** I realize that the
14 organization, Cameco, the risk is not high and so on but
15 because of possible -- and I want to underline possible -
16 -changes to the licence, possible changes to the site,
17 down the road and so on, the whole process may be a
18 growing thing; a growing process that you may never come
19 to a final decision until years out, until all these
20 other applications made be approved.

21 At the present time will you be
22 establishing your financial guarantee based on this
23 licence, based on the production of 18,000 -- I believe
24 it's 18,000 tonnes. Based on all of the things around
25 this licence, will the 32 million be put in place, the

1 PDP be put in place based on this licence alone or will
2 it be pending other decisions that the Commission may
3 make down the road?

4 **MR. HOWDEN:** Barclay Howden speaking.

5 I'm going to ask Bob Barker to comment on
6 what exactly is covered in the current PDP.

7 But what I'd like to say is, if there is
8 further amendments down the road; for example, the
9 Commission does consider a production increase, that has
10 to be done through a hearing process. At that time staff
11 would revisit this particular issue to determine whether
12 that PDP would have to be changed significantly and the
13 financial guarantee increased significantly.

14 I don't think that's the case but if it
15 was the case we would bring it back to you, because as
16 you know, we generally review these on a five year basis
17 unless major changes occur, in this case we would have to
18 look at -- if a production increase was granted, how much
19 of a change that would be.

20 I'd like to also make just another
21 comment. I'd say our review of PDPs has been
22 evolutionary and one of the major things besides the
23 costs of labour and all these things that is changing the
24 PDP is the CNSC staff is challenging the assumptions much
25 more strongly.

1 For example, if someone says at the end of
2 this we're going to decommission it and we're going to
3 take all the stuff and we're going to send it to some
4 sort of facility that hasn't been designed, hasn't been
5 conceived, we don't even know if it's going to be there,
6 we're not accepting that now. What we're saying is, if
7 that wasn't there what would you have to do in a
8 conceptual basis to do it yourself?

9 And with that we want you to cost it in
10 the most conservative fashion such that the financial
11 guarantee is basically envelopes. I just wanted to bring
12 that your attention is that Mr. Barker will talk about
13 our end states that we're demanding from licensees.
14 We're pushing them much harder because we want to make
15 sure that these things are as conservatively costed as
16 possible.

17 Now I'd like Mr. Barker to comment on what
18 exactly this PDP that we're reviewing right now covers.

19 **MR. BARKER:** Thank you. Bob Barker, for
20 the record.

21 The PDP that's been submitted by Cameco
22 represents the state of the facility in terms of its
23 operations as of the second quarter of 2006. It's not
24 accommodating any potential future changes that could
25 occur during the licence period. It does accommodate the

1 creation of a long-term waste management facility onsite
2 at some future point of decommissioning.

3 When staff reviews the -- as Mr. Howden
4 said that site doesn't currently exist. But the
5 requirements of a PDP are to -- it's a proposed
6 decommissioning approach and it has to be in sufficient
7 detail that in the light of existing knowledge is
8 technically and financially feasible. So in light of a
9 proposed mound on the site for the long-term storage of
10 waste from the decommissioning, that is a financially and
11 technically feasible approach that can be accepted.

12 Situations, for example, awaiting the
13 development of a national disposal facility, for example,
14 where nothing is on the books would not be an acceptable
15 approach.

16 In terms of the end-states objective for
17 the decommissioning what Cameco is proposing in the PDP
18 is a decommissioning of the main site with an
19 institutional control of the proposed mound through its
20 management facility in perpetuity.

21 **MEMBER GRAHAM:** Thank you. Just one
22 further question.

23 The CNSC staff is, based on Mr. Barker's
24 comments, the PDP when completed and the financial
25 guarantee will be in place, will be a licensed condition,

1 I presume, if it's not in place and will be in place.
2 When do you expect to have it in place in this new
3 licensing period, if it's approved?

4 **MR. HOWDEN:** Barclay Howden, speaking.

5 **THE CHAIRPERSON:** By acknowledging that
6 it's coming back to the Commission or a panel of the
7 Commission for decision, so when would it hit the
8 Commission, I suppose, in terms of that?

9 **MR. HOWDEN:** Barclay Howden, speaking.

10 I'll ask Bob Barker to give his best
11 estimate, realizing that as you go through an iteration,
12 there is still a little bit of uncertainty until we
13 actually accept it. But he's best to give you an
14 approximate time and as Madam Keen said, it will come
15 back to you for decision.

16 **MR. BARKER:** Thank you. Bob Barker, for
17 the record.

18 The review of the decommissioning costs
19 estimate is currently complete. The review of the PDP is
20 nearly complete. Staff estimates that we'll be providing
21 our formal response back to Cameco within several weeks
22 before the end of the year. Provided that Cameco responds
23 to our comments, I think there is a reasonable chance
24 that -- or responds to our comments in a timely manner,
25 there is a reasonable chance that we'd be able to provide

1 the information to the Commission in February.

2 **MEMBER GRAHAM:** Thank you. I just more or
3 less want an indication whether it was early or going to
4 be several years away, but thank you for that
5 information.

6 Does Cameco have any comment they want to
7 make on that before, and I have one other question of
8 Cameco.

9 **MR. ROGERS:** Terry Rogers, for the record.
10 Specifically to the PDP for Blind River, I
11 think it's being handled between the project and staff.
12 But just kind of a further comfort if it would be, as a
13 publicly traded company subject to the rules of the
14 securities exchanges, decommissioning plans are part of
15 our financial statements, and so we have to make the
16 commitment and then attest to that at the end of every
17 year. So it's part of our process of just governing our
18 business that's a bit outside of what CNSC does and
19 wouldn't be exactly consistent. But as changes would
20 happen to the project, we'd have to update that every
21 year for that purpose if for nothing else.

22 **MEMBER GRAHAM:** Thank you, Madam Chair.

23 One further question to Cameco and I
24 realize that in your summary of their operations, you do
25 have considerable amount of First Nations people working

1 for you. At Blind River in your complement of existing
2 workers and the new workers you're hiring, have you been
3 working with the First Nations there to employ some of
4 their people?

5 **MR. ASTLES:** Chris Astles, for the record.

6 The answer is yes. We do employ the First
7 Nations. There is no standard that we have to follow but
8 what we try to do is make sure we have the equivalency to
9 the local population, where Blind River has about 3500
10 people, the local Mississagi First Nations about 350
11 people, so we try to maintain that ratio.

12 As well, we have started an apprenticeship
13 partnership program where we provide training and assist
14 with the wages of members of the Mississagi First Nation,
15 and we are on our second apprentice now. The first one
16 was a welder and he ended up coming on full-time with the
17 company, and currently -- he came onboard about a month
18 ago. We do have a second welder that's going through the
19 apprenticeship program. So at the end of the process, he
20 will be a licensed tradesperson.

21 **THE CHAIRPERSON:** I just wanted to state
22 for the record that the Commission doesn't require any
23 types of typical employment of any particular groups for
24 the licence, for the necessity of the licence.

25 My question is to the CNSC staff. Mr.

1 Penna has raised the issue which, I think, questions the
2 validity of the EA process that was used. I note in the
3 staff conclusions that you said that the renewal of the
4 licence does not require an environmental assessment. As
5 such, having read Mr. Penna's comments, do the staff
6 still maintain that the EA that has been in place is
7 valid?

8 **MR. HOWDEN:** Barclay Howden speaking.

9 I'm going to ask Chris Taylor to speak to
10 that because he has assessed the submission by the
11 Intervenor.

12 **MR. TAYLOR:** Thank you. For the record,
13 it's Chris Taylor.

14 Yes, an environmental assessment was done
15 in the late 1970's by an environmental assessment review
16 panel. The assessment was for about a 9000 tonne UF₆
17 plant, and the panel was charged to look at three
18 locations in Ontario. Blind River was one of the
19 locations and the panel did conclude that for that
20 particular operation, that it would be acceptable
21 providing certain conditions were met. Now that being
22 said, the ultimate project was somewhat different, but
23 for the purposes of this licensing decision, the
24 environmental assessment history pertaining to this
25 project was not a factor that staff took into account or

1 is really applicable to the EA determination for the
2 purposes of this licence renewal. The fact remains that
3 the licence is for the renewal of a licence which is not
4 a trigger under the CEAA and therefore, an environmental
5 assessment is not required.

6 Thank you.

7 **THE CHAIRPERSON:** Thank you. We have
8 further questions so we will just take a ten minute break
9 and then we'll come back for the next series of
10 questions. Thank you. Ten minutes please.

11 --- Upon recessing at 10:29 a.m.

12 --- Upon resuming at 10:41 a.m.

13 **THE CHAIRPERSON:** We'll now start with
14 round two of questioning and I'll start with Mr. Harvey.

15 **MEMBER HARVEY:** That will be a very simple
16 question. I would like just to check if Cameco is
17 committed to -- I'm talking to referring to the rating of
18 quality assurance, if Cameco is committed to respect the
19 timeframe limit given by the CNSC staff to solve the, I
20 think it was five or six issues resulting from last
21 September's inspection.

22 **MR. ASTLES:** Chris Astles, for the record.

23 Absolutely, we will be responding within
24 the allotted timeframe.

25 **MEMBER GRAHAM:** Thank you.

1 **THE CHAIRPERSON:** Dr. Barnes?

2 **MEMBER BARNES:** I just wanted to ask two
3 or three with reference to the licence and the licence
4 recommendations.

5 I noticed a minor point in staff's
6 CMD that you didn't have a section at the end, called
7 recommendations, was that an oversight or is that a new
8 approach or was it simply that we were to take Day One's
9 recommendations? It's on page 5, for example. You
10 usually have conclusions and then you have
11 recommendations.

12 **MR. HOWDEN:** I found you are correct.
13 Normally we add recommendations. That was an oversight.

14 **MEMBER BARNES:** I think in your documents
15 you have made no comment or recommendation on a mid-term
16 report.

17 **MR. HOWDEN:** Barclay Howden speaking.

18 It's not in our CMD but Day One during the
19 Q & A session we did commit to a mid-term, if the
20 Commission should so desire.

21 **MEMBER BARNES:** In the licence there are
22 two appendixes which I wanted to ask your guidance on and
23 that's Appendix "C" and I compare with Appendix "F" and
24 it's Table 2 in both cases. On Appendix "C" which is on
25 Page 11 of 21 of the licence, that refers to the maximum

1 discharge rates for facility stack emissions and I
2 compare it with Appendix "F" on Page 21 of 21 which is
3 Table 2, Action Levels Facility Stack Emissions.

4 On the Action Levels, you have a line item
5 on Appendix "F" which has all stacks, 1, 2, 3 uranium,
6 but in the Appendix "C" which is the maximum, just
7 discharge rates. There is no line for "All Stacks". The
8 first three are separate stacks and there is none for the
9 others.

10 Is that an omission or am I missing
11 something here?

12 **MR. HOWDEN:** Barclay Howden speaking.

13 I'll ask Avijit Ray, our environmental
14 protection specialist to reply.

15 **MR. RAY:** Avijit Ray, for the record.

16 If you look at Table 2 at Appendix "C",
17 the three numbers are derived from the -- derived release
18 limit which is 45,000 kilograms per U and then that comes
19 to 5.2 kilograms per hour, and 5.2 was distributed
20 between the three stacks. The two major process stacks
21 are the absorber and the dust collection exhaust vent
22 stacks. So those are -- those got two plus two and then
23 the incinerator stack got 1.2 there

24 So collectively, 5.2 is equivalent to the
25 derived release limit. That's the reason it is the

1 maximum discharge rate.

2 Now when you -- the way we control the
3 operation is by implying an action level. So the first
4 line of defence was to take the "all stacks" in your
5 Table 2 of Appendix "F" where what we did, we said the
6 all stacks will be limited to 28 grams per hour on a
7 weekly average. Then we gave another control on the each
8 stack each, stacks such as absorber and the dust
9 collection exhaust fan which operates continuously. So
10 that is a daily average and then the incinerator stack,
11 which does not operate continuously, has a 5 grams per
12 hour on a weekly average.

13 **MEMBER BARNES:** Okay, thanks.

14 Madam Chair, I just wanted to ask a
15 question which I think is legitimate in the context here,
16 but particularly because certainly in the chemical
17 presentation they refer to the two EA's and that's been
18 fairly evident. So, but we have at least two intervenors
19 who would like a shorter licence length and both licensee
20 and staff have advocated a five-year licence length.

21 But if we assume, for the process at this
22 question, that the two EA's are approved, one deals with
23 the incinerator and one will deal with a request by
24 Cameco for a production increase of 18 to 24 tonnes UO₃,
25 then certainly within the timeframe of this next DA,

1 there will be these, I think, significant developments.

2 We spent some time this morning looking
3 back over the last five years with the company showing
4 certain trends and arguing for certain improvements. I
5 think it would be important if a five-year licence is
6 granted that we have the appropriate monitoring to
7 understand and document the impact of these two new
8 developments, the incinerator factor and the increase in
9 production over that time.

10 So my question, both to staff to Cameco,
11 has there in the -- this is where it's tricky, Madam
12 Chair, because we are referring to other documents that
13 aren't before us but the implications of those documents
14 certainly are before us. I'm not sure if it's these
15 documents in Day One that we have seen a kind of
16 estimation from Cameco how the emissions will vary, let's
17 say over that five-year time, particularly after these
18 modifications have been put in place and the increased
19 production.

20 I think in the one case you're arguing
21 that these will be improvements and in the other case,
22 clearly there is an increased production which will imply
23 an increased loading on the environment.

24 So I think it's important for the process
25 that we have assurance that there is adequate monitoring

1 of these changes so that we can differentiate the current
2 effects of production versus the changing effects within
3 this licence period when this Commission looks at it,
4 possibly five years from now.

5 Could I ask Cameco what you would
6 anticipate as being the impact, if these two EA's are
7 approved, in emission trends, particularly over --
8 presume the years 3, 4 and 5, if it were to be a five-
9 year licence.

10 **THE CHAIRPERSON:** Perhaps I just might
11 frame it -- I think what -- acknowledging that you are
12 asking for a five-year licence and that there are some
13 changes proposed, which is not just your facility it
14 happens in other facilities. But assuming that you have
15 looked at this five-year period of time as Dr. Barnes has
16 said, and scoped in what you will need in terms of
17 monitoring, staff, other issues and not taking into
18 account that -- you're not to assume that you will get
19 either the licence amendment that will allow you to do
20 this. So please do not consider that, but obviously if
21 you're planning it, you're thinking ahead as to what you
22 would need to have in place.

23 So what I think, if I'm correct, Dr.
24 Barnes, what we're looking for is, in your planning model
25 for this facility, we want to be assured that over this

1 five-year period, at the very least, but probably, you
2 know, what you're looking at in terms of the longer term,
3 but at least this five-year model, that what you've
4 looked at in terms of the necessary components of
5 assurances of safety, environmental protection, worker
6 safety and safety of the population, that these things
7 are in place or are planned for in that context.

8 Perhaps that might be a start and then
9 I'll go back to Dr. Barnes afterwards.

10 **MR. ASTLES:** Chris Astles for the record.

11 With the EA process, we have taken all
12 that into consideration as well as the ERA that we've
13 completed also was based on the increased production
14 numbers.

15 So, looking forward to emissions, we
16 have taken into consideration the incinerator and the
17 production increase as well as within the facility
18 itself, looking at the staffing levels, the various
19 projects and make improvements, areas such as that to
20 improve safety and continually reduce and address
21 emissions. It was taken into consideration.

22 **THE CHAIRPERSON:** And then if you
23 could answer Dr. Barnes' specific question about the
24 details of, particularly, for example, the emissions
25 area.

1 we were to look at the curve, some of which you've shown
2 here, like the groundwater monitoring or the air
3 emissions, the soil monitoring, would you anticipate more
4 or less continuing fairly flat trends or ---

5 **MR. ASTLES:** Chris Astles, for the record.

6 With the EAs that we submitted, we're
7 predicting no increases, significant increases based on
8 the increased production numbers. We do recognize that
9 increased operating days will increase the loadings but
10 it's not based on operating performance, just numbers of
11 operating days.

12 **MEMBER BARNES:** And staff would concur or
13 otherwise?

14 **MR. HOWDEN:** Barclay Howden speaking.

15 I'd say we concur in general with that.
16 I'd like to just frame it within the regulatory
17 framework. With regards to the five years, we've
18 presented our criteria to you and it comes down to
19 significant changes in the licence activity.

20 The approach we've taken is often we --
21 that represents a phase change, construction to
22 commissioning to operation or decommissioning. In the
23 case of this facility, we see the operations are not
24 going to cease. They have put, as you are aware, two
25 proposals; one, the production increase, what we see.

1 Although there are some facility changes, it's really
2 more of the same and more operating days.

3 What we looked at is we see no change in
4 their operational approach to this facility. There's no
5 requirements are going to change -- regulatory
6 requirements are going to change to our programs. For
7 example, the ALARA program is still there for RP and
8 environmental protection.

9 What will change from a limit standpoint
10 is the incinerator limits if it's all acceptable,
11 actually go down.

12 From a stack limits; they'll still be
13 based on our DRL calculations and they won't go down.

14 What we're planning to do is coming back
15 in two and a half years with basically a performance
16 report to the Commission, to let you know how things are
17 going.

18 Now in terms of the EA process, I'd just
19 like Chris Taylor to comment just for a moment on what
20 will be considered in that, in terms of when you do make
21 changes like this, like a production increase and how we
22 look at it for impacts on the environment.

23 **MR. TAYLOR:** Thank you. Chris Taylor,
24 Acting Director, Environmental Assessment Division.

25 Dr. Barnes, some of the questions you're

1 asking are indeed what we hope to -- or what we will be
2 looking at in the context of the environmental assessment
3 for the production increase. That is to examine how the
4 production increase will interact with the environment;
5 with the air, with groundwater or anything else. So
6 we're not really in a position at this point to pre-judge
7 what that outcome might be.

8 It's also important to recognize in the
9 context and within the scope of the environmental
10 assessment that will be done on that, is a thorough look
11 at the cumulative effects of the production increase,
12 together with the rest of the plant. That environmental
13 assessment will come to the Commission for examination
14 and approval, as will the licensing, should it proceed
15 beyond the environmental assessment. So that's what
16 we're aiming for there.

17 **MEMBER BARNES:** I have just one final
18 question to Cameco and staff if they wish to respond and
19 it's going back to the groundwater monitoring. So it's
20 page 15 of the Cameco proposal.

21 At the bottom of that page, you present a
22 table showing the values of upstream and downstream wells
23 and you divide each of those well data into
24 preoperational and then the 202 to 206 values.

25 And if we just look at the average in

1 there, I wonder if you could explain why one would expect
2 the preoperational -- the bottom line there, the uranium
3 total for preoperational is significantly higher than
4 reported in the wells in 202 to 206 in both upstream and
5 downstream. Why would that be?

6 **MR. DEGRAW:** Joe DeGraw, for the record.

7 In reviewing the preoperational data, the
8 first thing you have to recall is, there wasn't a lot --
9 I believe that was basically a much smaller sample size;
10 four or five samples perhaps, that that represents versus
11 the 2002 to 2006, I believe, was on the order of 30 to 40
12 sample results. So that may contribute part of that.

13 The other thing possibly and obviously I
14 don't know this for sure but, again, that sampling was
15 done, I believe in 1981. Again, maybe analytical
16 techniques -- you know, our detection limits are better
17 now and so on. That may have had an impact, as well,
18 minimum detection limits. But again, obviously, I don't
19 know that for sure.

20 **MEMBER BARNES:** But if this is the case, I
21 wonder if it's worth presenting it in this form. I mean,
22 I just don't understand why preoperationally -- what
23 you're saying here in these data is that you've been
24 providing some loading. We looked at the soil samples,
25 right, of two times background and one would imagine that

1 would get into the groundwater and therefore enhance
2 groundwater for uranium. And yet what we see here is a
3 significant reduction in that, which defies some logic
4 unless, as you say, the analytical techniques in these
5 are faulty.

6 Therefore, I think if that -- either
7 there's variance, but even the average, the variance that
8 you see in there follows the pattern I'm talking about.
9 So I don't think local variance is perhaps the answer.

10 Analytical techniques; but if that is the
11 case, then I'm not sure that these data should be used
12 because it's potentially invalid. Right?

13 **MR. DEGRAW:** Joe DeGraw, for the record.

14 We don't believe the data is invalid per
15 se. Obviously the preoperational monitoring was
16 incorporated into a preoperational monitoring report that
17 was submitted and accepted by, at the time, the ACB. So
18 we certainly don't believe the data is invalid and we're
19 certainly not making that statement but it was felt when
20 preparing the CMD that if we hadn't presented the
21 preoperational data, then an obvious question, either
22 from Commission Members or possibly intervenors might be,
23 "How does this compare with preoperational data?" so it
24 was decided to include it because by excluding it, we
25 might get asked, "Why did you exclude it?"

1 So I guess the short answer is, the
2 preoperational data is what it is.

3 **MEMBER BARNES:** Staff, any comment?

4 **MR. HOWDEN:** Barclay Howden speaking.
5 I'd like Dr. Shizhong Lei to comment.

6 **DR. LEI:** This is Shizhong Lei, for the
7 record.

8 I think Dr. Barnes, you ask a very good
9 question. In general, I agree with Cameco's response.
10 In 2002, Cameco had a study of the Groundwater Monitoring
11 Program and the consultant recommended that the
12 monitoring program was in good shape, but they also asked
13 to add a few wells on the site.

14 I look at the historic plots. If we look
15 at the plots as a whole picture, you wouldn't see a
16 decrease or increase. In fact, the preoperational
17 monitoring was done just for three locations in 1980.
18 The average of the preoperational data is significantly
19 affected by a few numbers that are very big. So if we
20 look at a plot from the preoperational time to today, you
21 don't see decrease or increase of the trend.

22 **MEMBER BARNES:** Perhaps it's getting
23 outside the purpose of its licence, but I think if we are
24 given numbers like this -- you're not really explaining
25 why there is this variance. right? When there was a

1 variance before in the nitrates, between preoperational
2 and whatever, maybe it's analytical techniques or
3 something or natural variances.

4 Now, you have a large number of wells and
5 we are not given information why there should be
6 significant variances, for example, in uranium in
7 groundwater.

8 If you had a smaller number of wells,
9 preoperational, at least -- presuming those were still
10 operational, and one might wish to compare those limited
11 number of preoperational wells with the data from those
12 wells in '02 to '06 as one subset. At least you're
13 comparing the same wells as opposed to having a wider
14 range of wells and therefore having a different data set.

15 I just find it's a very dissatisfying
16 method of presenting data.

17 **MR. LEI:** And this only -- again, maybe I
18 can make another comment on this. I totally agree with
19 your observation. In fact, before this hearing, CNSC
20 staff contacted Cameco and asking them to present all the
21 data in their graphic manner and tabular manner, not just
22 give the average and the range. And they responded that
23 they are too busy for the moment to provide this data,
24 but if we want them, they are going to provide it to us
25 at a later time.

1 That would help us further understanding
2 the variations and staff also discussed amongst
3 ourselves, like we saw the experts in chemistry and
4 environment scientists. Their sense is that even in
5 nature, for example, the uranium concentration in soil
6 and the groundwater would change significantly, maybe by
7 order or magnitude. It's simply because many of the
8 processes are chemical, geophysical and those kinds of
9 processes are playing a role in controlling the
10 concentration of, for example, uranium.

11 **THE CHAIRPERSON:** Further questions, Dr.
12 McDill?

13 **MEMBER McDILL:** Thank you.

14 One question to Cameco. Again, it's a
15 Northwatch concern on page 4 of the Northwatch and the
16 question with respect to Daphnia and the exceedance.

17 I wonder if Cameco would like to explain
18 why that was not reported?

19 **MR. DEGRAW:** Joe DeGraw, for the record.

20 Through on oversight on our part, Cameco
21 was not aware of the reports on the MOE website regarding
22 the toxicity failures. Had we been aware of these
23 notices, we would have commented on this at Day One.

24 The MOE comes to our site approximately
25 once a year to collect effluent samples for testing.

1 Cameco's practice has been to collect a sample of our own
2 at the same time and have it analyzed by our own contract
3 lab.

4 In December 2003, the MOE came on site and
5 collected a sample of our effluent and had it analyzed at
6 their lab. Cameco collected a sample of the same
7 effluent at the same time and had it analyzed by our
8 contract lab.

9 The MOE sample indicated a fail for the
10 Daphnia magna acute test, while the Cameco sample
11 indicated a pass. In discussions with the MOE, it was
12 decided to conduct a resample. This was done in January
13 2004. Again, the MOE result was a pass for the Daphnia
14 test, while the Cameco result from our contract lab
15 indicated a pass.

16 The MOE toxicity specialists conducted an
17 investigation and discovered while both labs followed
18 established test protocols, the MOE lab utilizes test
19 tubes for the Daphnia bioassay while our contract lab
20 uses beakers. Given the nature of our effluent, the
21 reduced surface area in the test tubes may stress the
22 test organisms by impeding their ability to migrate and
23 stay near the surface of the water in an improved oxygen
24 environment.

25 In light of this, the MOE concluded that

1 these events did not constitute a failure of the Daphnia
2 magna test.

3 **MEMBER McDILL:** So that accounts for the
4 December 2003 and the January 2004.

5 I wonder if I could ask Northwatch if that
6 is satisfactory? I'm getting ---

7 **THE CHAIRPERSON:** I don't think we have to
8 ask intervenors if that's satisfactory. That's not the
9 purpose -- no, I don't think that's the reason for this.

10 **MEMBER McDILL:** All right.

11 **THE CHAIRPERSON:** I think we could ask MOE
12 if that is ---

13 **MEMBER McDILL:** Thank you. Maybe that's
14 better, if MOE concurs.

15 **MR. DORSCHT:** Ron Dorscht, for the record.

16 Joe gave an accurate description of the
17 events relating to the failures for acute lethality for
18 Daphnia. Our website is reporting public information
19 area which basically presents data. It doesn't provide
20 the opportunity to tell the story that goes along with
21 that data and Joe adequately described the story.

22 **MEMBER McDILL:** Thank you, Madam Chair.

23 **THE CHAIRPERSON:** Mr. Graham, do you have
24 another question? Dr. Dosman?

25 **MEMBER DOSMAN:** Thank you, Madam Chair.

1 I'd like to ask CNSC staff to explain in
2 the licence conditions on Appendix C and Appendix F of
3 the CMD. Appendix C essentially outlines the maximum
4 discharge concentrations in effluents and stack, and
5 Appendix F outlines the action levels in effluent and in
6 stack emissions.

7 And I would appreciate if CNSC staff could
8 explain the difference between a maximum discharge
9 concentration and an action level, and how these action
10 levels are derived.

11 **MR. HOWDEN:** Barclay Howden speaking.

12 In terms of the maximum discharge levels,
13 this is based on the DRL, which is basically the legal
14 limit. The action levels are set to -- much more closer
15 to the operating level to give early warning of a
16 potential problem, potential loss of control, such that
17 the licensee takes action from a regulatory standpoint.
18 They have to report it to us and then they have to
19 implement an investigation and report to us.

20 In terms of how the action levels are set
21 from an environmental standpoint, I'll just ask Mr.
22 Taylor to comment on that.

23 **MR. TAYLOR:** Chris Taylor, for the record,
24 Director, Geosciences, Environmental Compliance.

25 As Mr. Howden indicated, the maximums are

1 a representation of what would have to be released in
2 order to theoretically deliver to a critical group, a
3 theoretical critical group of one milliSievert dose,
4 which is the public dose limit.

5 This is done using a methodology that
6 takes into account various -- modelling of various
7 environmental pathways and routes for the movement of the
8 contaminant through various environmental media to the
9 exposure of this theoretical critical group. These
10 models are done using very conservative assumptions about
11 transfer of contaminants and uptake into the critical
12 individual.

13 But as Mr. Howden alluded to, also we
14 don't regulate on the basis of that other that those
15 represent dose limits. We require licensees to maintain
16 their emissions and exposures to the public as low as
17 reasonably achievable at a very small fraction of that
18 maximum limit and use action levels is one way to achieve
19 that objective.

20 **THE CHAIRPERSON:** Thank you very much.

21 We will now go on to the written
22 submissions. We have grouped most of the written
23 submissions because they reflects similar comments or
24 requests for the Commission.

25 However, we will introduce -- we will

1 start with the written submission from the Town of Blind
2 River. This is outlined in CMD document 06-H20.5.

3
4 **06-H20.5**

5 **Written Submission from the**
6 **Town of Blind River**

7
8 **THE CHAIRPERSON:** Are there any comments
9 with regards to this submission?

10 Thank you very much. Now, I will turn to
11 the Secretary.

12 **MR. LEBLANC:** Merci. The following
13 interventions which reflect similar comments have been
14 submitted to the Commission by the following companies,
15 community-based organizations or business organizations:
16 06-H20.4 from the Blind River Festivals Committee; 20.6
17 from the Timber Village Museum; .7 from the W.C. Eaket
18 Secondary School; .8 from Milltown Motors Ltd.; .9 from
19 the Alzheimer Society of Sault Ste. Marie and Algoma
20 District; .10 from St. Mary's Catholic School; .11 from
21 the Blind River District Health Centre; .12 from the
22 Rotary Club of Blind River; .13 from the Kidney
23 Foundation of Canada - Blind River; .14 from the Blind
24 River Home Hardware Building Centre; .15 de l'École St-
25 Joseph de Blind River; .16 from the Huron Pines Golf and

1 Country Club; .17 from the Kidney Foundation of Canada -
2 Sault Ste. Marie Unit and Greater Ontario Branch.

3

4 06-H20.4

5 Written Submission from the
6 Blind River Festivals Committee

7

8 06-H20.6

9 Written Submission from the
10 Timber Village Museum

11

12 06-H20.7

13 Written Submission from the
14 W.C. Eaket Secondary School

15

16 06-H20.8

17 Written Submission from the
18 Milltown Motors Ltd.

19

20 06-H20.9

21 Written Submission from the
22 Alzheimer Society of Sault Ste.
23 Marie and Algoma District

24

25 06-H20.10

1 Written Submission from the
2 St. Mary's Catholic School

3

4 06-H20.11

5 Written Submission from the
6 Blind River District Health Centre

7

8 06-H20.12

9 Written Submission from the
10 Rotary Club of Blind River

11

12 06-H20.13

13 Written Submission from the
14 Kidney Foundation of
15 Canada - Blind River

16

17 06-H20.14

18 Written Submission from the
19 Blind River Home Hardware
20 Building Centre

21

22 06-H20.15

23 Written Submission from
24 École St-Joseph de Blind River

25

1 06-H20.16
2 Written Submission from
3 Huron Pines Golf and Country
4 Club

5
6 06-H20.17
7 Written Submission from
8 Kidney Foundation of
9 Canada - Sault Ste. Marie Unit
10 and Greater Ontario Branch

11

12 **THE CHAIRPERSON:** Are there any questions
13 or comments from Commission members with regard to these
14 written submissions?

15 Thank you very much.

16 Then with respect to this matter I propose
17 that the Commission confer with regard to the information
18 that we have considered today and then determine if
19 further information is needed or if the Commission is
20 ready to proceed with the decision and we will advise
21 accordingly.

22 Thank you very much to everyone for being
23 here today with us. We do appreciate your involvement.

24 We'll take a 10-minute break and then we
25 will start with the TRIUMF hearing.

1 --- Upon recessing at 11:13 a.m.
2