

**Canadian Nuclear  
Safety Commission**

**Commission canadienne de  
sûreté nucléaire**

**Public hearing**

**Audience publique**

**Cameco Corporation:**

Application by Cameco  
Corporation for the renewal of  
Class IB Nuclear Fuel Facility  
Operating Licence for Blind River  
Refinery in Ontario

**Cameco Corporation :**

Demande de Cameco Corporation  
Pour le renouvellement de son permis  
d'exploitation d'une usine de  
combustibles nucléaires de catégorie  
IB à Blind River en Ontario

**January 19<sup>th</sup>, 2012**

**Le 19 janvier 2012**

Town Park Recreation Centre  
62 McCaul Street,  
Port Hope, Ontario

Centre récréatif Town Park  
62, rue McCaul  
Port Hope (Ontario)

**Commission Members present**

**Commissaires présents**

Dr. Michael Binder  
Dr. Moyra McDill  
Mr. Dan Tolgyesi  
Dr. Ronald Barriault  
Mr. André Harvey

M. Michael Binder  
Mme Moyra McDill  
M. Dan Tolgyesi  
M. Ronald Barriault  
M. André Harvey

**Secretary:**

**Secrétaire:**

Mr. Marc Leblanc

M. Marc Leblanc

**General Counsel :**

**Conseillère générale:**

Ms. Lisa Thiele

Mme Lisa Thiele

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--- Upon resuming at 11:09 a.m./  
L'audience est reprise à 11h09

**THE CHAIRMAN:** Okay, can we get going on this?

The next item on the agenda today is Hearing Day Two, on the matter of the application by Cameco Corporation for the renewal of Class IB Nuclear Fuel Facility Operating Licence for Blind River Refinery in Ontario.

Marc?

**Cameco Corporation:  
Application by Cameco  
Corporation for the Renewal of  
Class IB Nuclear Fuel Facility  
Operating Licence for Blind River  
Refinery in Ontario**

**MR. LEBLANC:** This is Day Two of the public hearing. The first day of the public hearing, or Day One on this application, was held on November 3<sup>rd</sup>, 2011 in Ottawa. The Notice of Public Hearing 2011-H-10 was published on August 24<sup>th</sup>.

1 Presentations were made on Day One by the  
2 Applicant, Cameco, under Commission Member Document or CMD  
3 11-H18.1 and 11-H18.1A, and by Commission staff under CMD  
4 11-H18.

5 The public was invited to participate  
6 either by oral presentation or written submission.  
7 December 19<sup>th</sup> was the deadline set for filing by  
8 intervenors.

9 The Commission received 38 requests  
10 for intervention. Two (2) requests were received  
11 significantly after the deadline and were denied.

12 January 11, 2012 was the deadline for  
13 filing of supplementary information. I note that  
14 supplementary information has been filed by CNSC staff,  
15 Cameco and as well as intervenors.

16 Participant funding was available to  
17 intervenors to prepare for and participate in Hearing Day  
18 Two. The Commission received three such requests for  
19 funding regarding the Blind River Refinery.

20 The Funding Review Committee, which is  
21 independent of the Commission, reviewed the applications.  
22 Funding was provided to two of the applicants as per a  
23 decision issued on December 14, 2011.

24 Mr. President.

25 **THE CHAIRMAN:** Thank you, Marc.

1                   And still good morning, right? Good  
2 morning, everybody, and welcome to this hearing.

3                   Mon nom est Michael Binder. Je suis le  
4 président de -- the Canadian Nuclear Safety Commission and  
5 I'd like to start by introducing the Commission here with  
6 us today.

7                   On my right is Dr. Moyra McDill and  
8 Monsieur Dan Tolgyesi, and on my left, Dr. Ronald  
9 Barriault and Monsieur André Harvey.

10                  And you heard from Marc Leblanc, our -- the  
11 Commission Secretary and we also have with us here our  
12 lawyer, Ms. Lisa Thiele. She's the lawyer to the  
13 Commissioners.

14                  So I'd like to start by calling on a  
15 presentation from Cameco Corporation, as outlined in CMD  
16 11-H18.1B and 11-H18.1C.

17                  Mr. Thorne, go ahead, please.

18

19                  **11-H18.1B / 11-H18.1C**

20                  **Oral presentation by**

21                  **Cameco Corporation**

22

23                  **MR. THORNE:** Thank you, President Binder.

24                  I'd just like to take this opportunity just  
25 to answer a question that was raised yesterday, is

1 relevant to the division.

2 There was a question in relation to our  
3 substance pre-employment testing. I have the results of  
4 that to share with you.

5 The program is relatively new to Cameco.  
6 It's -- in relation to fuel services, it came into effect  
7 on July the 1<sup>st</sup>, 2011. Since that time, I can confirm for  
8 conversion facility we have conducted 19 tests and we have  
9 had no positive results.

10 For CFM we have -- or Cameco Fuel  
11 Manufacturing, we've conducted three tests and no positive  
12 results. And for the Blind River Refinery, we have not  
13 hired anybody since July of 2011 so, as a result, no  
14 testing has been carried out there.

15 So I just wanted to answer that question.

16 **THE CHAIRMAN:** Thank you.

17 **MR. THORNE:** So moving on, for the record,  
18 my name is Andy Thorne; I'm the Vice-President of Cameco's  
19 Fuel Services Division.

20 It's my pleasure to introduce Chris Astles  
21 and Joe DeGraw. Chris has been the Manager of Cameco's  
22 Blind River Refinery since 2007 and is responsible for all  
23 operations at the plant and the production of uranium  
24 trioxide.

25 A life-long resident of Blind River, Chris'

1 involvement with the facility began during the  
2 construction of the refinery when he worked for the prime  
3 contractor. He then started working for Eldorado in 1983.  
4 He has held numerous positions at the facility, working  
5 his way up from the Process Department to his current role  
6 in leading the refinery's 150-plus employees.

7 Joe is in his 30th year with the refinery  
8 where he serves as Superintendent, Quality, Compliance and  
9 Licensing. The majority of his time has been spent  
10 working in the areas of environmental and radiation  
11 protection, including serving approximately 15 years as  
12 the Radiation Protection Officer for the site.

13 In his current role, Joe is the main site  
14 liaison with CNSC staff and is responsible for compliance  
15 and licensing activities, including implementation and  
16 oversight of both the radiation protection programs and  
17 environmental monitoring programs.

18 It's my pleasure to now pass over to Chris  
19 Astles.

20 **MR. ASTLES:** Good day. For the record, I  
21 am Chris Astles, General Manager of the Blind River  
22 Refinery. Once again with me today is Joe DeGraw, the  
23 Superintendent of Quality, Compliance and Licensing.

24 Today's brief presentation is to provide an  
25 update of the refinery activities that have occurred since

1 Day One presentation and to address some questions that  
2 arose during that time.

3 The current operating licence for the  
4 refinery was issued in March of 2007. The refinery has  
5 applied for a 10-year licence with a production increase  
6 of 6,000 tonnes uranium. The refinery has operated safely  
7 throughout the current licensing period.

8 Throughout the operation the site is  
9 committed to maintaining a safe, clean and reliable  
10 operation. The culture of the site and the employees is  
11 to utilize a questioning attitude that identifies areas of  
12 continual improvement so the site's overall performance  
13 will continue to improve.

14 We have demonstrated during the current  
15 licensing period improvements in uranium emissions,  
16 improving recovery, eliminating the high risk chemical  
17 from the operation, reducing bulk storage of chemicals and  
18 making progress in waste management inventory reductions.

19 This commitment to continual improvement  
20 has the site looking at ways to further improve emissions  
21 and to reduce effluent discharges. The commitment is also  
22 being supported from a divisional approach, allowing the  
23 sites to better utilize and understand lessons learned  
24 from activities at other locations. With this approach  
25 we've been able to create synergies to make improvements

1 in areas such as waste management.

2 Looking forward, it is recognized that  
3 working as a division there can be additional areas of  
4 improvements to help the other sites. For example,  
5 current issues being examined include helping CFM address  
6 their contaminated combustible material.

7 As in all initiatives that impact  
8 operations, Cameco realizes there are processes that must  
9 be followed prior to any change, such as a regulatory  
10 approval process and required communications with other  
11 stakeholders.

12 As a follow-up to the Day One Hearing  
13 Cameco has carried out a review of the public opinion  
14 survey that was conducted to try and define what concerns  
15 were identified. In general, there was no one specific  
16 topic that was identified but rather a variety of issues.  
17 These were related to areas such as environmental  
18 performance, waste management, long term health effects  
19 and operational concerns.

20 As Cameco has expanded its public outreach  
21 program and now has a community website, this information  
22 is now more readily available to the public helping to  
23 address their questions.

24 Cameco recognizes the importance of open  
25 communications and public consultation to maintain the

1 support in the communities within which we operate. We  
2 believe this is effective and is demonstrated by the  
3 amount of support we receive through the submissions to  
4 the CNSC.

5 Most encouragingly, for the first time in  
6 the history of the refinery we have received an  
7 endorsement from Mississaugi First Nation. We attribute  
8 this to the amount of support and interaction we have  
9 developed with this community, as we recognize they are  
10 our closest neighbour.

11 As well, we have received letters of  
12 support from outside communities like the City of Elliot  
13 Lake and the Municipality of Huron Shores which  
14 encompasses Iron Bridge to Thessalon.

15 We are committed to maintaining open  
16 communications and honest dialogue with our local  
17 communities and continue to expand our contact base to  
18 other communities.

19 Our public consultation process is not  
20 taken lightly and we recognize this requires significant  
21 efforts and we are always looking at ways to further  
22 improve our relations with these communities.

23 The Blind River Refinery has a very  
24 detailed groundwater management program. This program has  
25 undergone a number of reviews by third party consultants

1 to ensure we are providing the necessary oversight and  
2 monitoring of the groundwater.

3 These reviews have identified opportunities  
4 to further improve our program which Cameco has  
5 implemented. As an example, an additional six monitoring  
6 wells have been added to our network since the Day One  
7 Hearing to enhance our existing monitoring program.

8 As a follow-up to the Commission's request  
9 from the Day One Hearing a site plan has been provided  
10 that identifies the locations of the wells. The arrows on  
11 the plan indicate the direction of the groundwater flow  
12 across the licence site. These wells are identified as  
13 blue and red circles. The blue monitoring wells represent  
14 wells drilled prior to 2007 while the red colour  
15 represents wells drilled during the current licensing  
16 period.

17 Cameco is continuing to follow-up on the  
18 issue of the flood potential for the site. As a bit of  
19 background, there have been two independent flood studies  
20 carried out by Cameco and its predecessor company Eldorado  
21 that indicate there are no significant flooding concerns  
22 at the site.

23 The discrepancy has come from the emergency  
24 response plan submitted by the owner of the three power  
25 dams on the Mississauga River which indicate the site

1 would be flooded under scenarios both with and without dam  
2 failure.

3 We are continuing to work with our  
4 consultant and the owner of the dams to try and determine  
5 the reason for the discrepancy. One of the challenges is  
6 that their plan was prepared by the original owners of the  
7 dam and not by the current owners.

8 Cameco believes the discrepancy is likely  
9 due to differences in modelling technique and assumptions  
10 being used. Utilizing historical knowledge of the area  
11 and the information provided by our consultants, we  
12 believe that this overall risk remains low.

13 Cameco is also in the process of assessing  
14 the potential implication of a worse case flood impacting  
15 the site. This was requested by the Commission at the Day  
16 One Hearing. The report on this assessment will be  
17 submitted to the CNSC when completed in mid-2012.

18 Cameco is committed to operate the refinery  
19 in a safe responsible manner. We are requesting a 10-year  
20 licence with annual licence capacity of 24,000 tonnes  
21 uranium per year.

22 The refinery has demonstrated a commitment  
23 to continual improvements in all areas of the operation  
24 with safety and environmental performance leading Cameco  
25 sites.

1           The success of the site is built around the  
2           commitment of the employees and the relations we have  
3           developed with the local community which we operate in.

4           This concludes my presentation and would be  
5           happy to answer any questions at this time.

6           **THE CHAIRMAN:** Thank you.

7           I'd like to move now to a presentation from  
8           CNSC staff.

9           Mr. Elder?

10

11           **Oral presentation by**

12           **CNSC staff**

13

14           **MR. ELDER:** Good morning, Mr. President and  
15           Members of the Commission.

16           I'm Peter Elder, Director General of the  
17           Directorate of Nuclear Cycle and Facilities Regulation.

18           With me at the front table today are Mr.  
19           B.R. Ravishankar, Director of the Nuclear Processing  
20           Facilities Division and Mr. Jafir Jaferi, who is the  
21           Senior Project Officer in that division.

22           As before, we have members of CNSC staff  
23           here to answer questions and more staff available in  
24           Ottawa via teleconference.

25           I note that during the Day One Hearing on

1 November 3<sup>rd</sup> there were no requests to CNSC staff for  
2 supplemental information but we will very quickly go over  
3 our presentation -- our findings from our licence  
4 application and our review of the supplemental information  
5 that Cameco did submit.

6 The presentation will cover then a brief  
7 introduction to the facility, a review of the licensee  
8 performance, our look at Cameco's supplemental information  
9 and then conclude with our staff conclusions and  
10 recommendations.

11 Cameco Corporation of Saskatoon operates  
12 and owns a refinery at Blind River Ontario. This slide  
13 shows a review of the Blind River Refinery and  
14 surroundings. The Town of Blind River is about five  
15 kilometres to the east of the refinery.

16 The facility refines various milled uranium  
17 concentrates received from mines around the world to  
18 produce uranium trioxide powder. The primary recipients  
19 of this powder are Cameco's Port Hope Conversion Facility  
20 and Spring Fuels Limited in the United Kingdom.

21 The facility currently employs  
22 approximately 160 people and has been in operation since  
23 1983. The nearest permanent residence is about one  
24 kilometre away from the facility.

25 We note that the current licence expires at

1 the end of February this year and Cameco has asked for a  
2 10-year licence and an increase in capacity by 33 percent.  
3 This production capacity increase was already covered --  
4 an environmental assessment on this production increase  
5 has already been conducted in 2008.

6 I will now turn over to Mr. Jaferi for the  
7 rest of the presentation.

8 **MR. JAFERI:** Thank you, Mr. Elder.

9 Good morning, Mr. President and Members of  
10 the Commission.

11 We now present the third part of our  
12 presentation on CNSC staff's assessment of licensee's  
13 overall compliance performance during the current licence  
14 period.

15 Cameco continues to maintain comprehensive  
16 and mature programs in all safety and control areas.  
17 During the Day 1 public hearing staff presented details on  
18 the CNSC compliance verification plan and associated  
19 activities for this facility.

20 This included an overview of licensees  
21 performance in all safety and control areas. Only a recap  
22 of overall assessment is provided here. CNSC staff  
23 conducted 27 on site compliance inspections and several  
24 desktop reviews of Cameco's submissions during 2007 and  
25 2011.

1                   Deficiencies found during inspections and  
2                   desktop reviews were satisfactorily addressed by the  
3                   licensee in accordance with its corrective actions plans,  
4                   reviewed and accepted by the CNSC staff.

5                   Currently there are no safety significant  
6                   items outstanding at this facility. The Blind River  
7                   facility is in compliance with CNSC's regulatory  
8                   requirements. Overall, Cameco has operated the facility  
9                   safely and its performance in all safety and controlled  
10                  areas is satisfactory.

11                  Now, we present key performance statistics  
12                  in certain safety and control areas including radiation  
13                  protection, environmental protection and conventional  
14                  health and safety of interest to the Commission and the  
15                  public.

16                  Cameco continues to maintain an effective  
17                  radiation protection program to keep doses to workers and  
18                  the public as low as reasonably achievable. Presented  
19                  here in this graph is a maximum effective dose to a  
20                  hypothetical member of the public.

21                  The public radiation dose resulting from  
22                  facility operations is calculated annually for a location  
23                  in the Huron Pines Public Golf Course adjacent to the  
24                  facility.

25                  The maximum effective dose calculated to a

1       hypothetical member of the public at the golf course  
2       monitoring station was 0.036 millisieverts per year during  
3       the period from 2007 to 2011. This is a very small  
4       fraction of the CNSC's regulatory limit of 1 millisievert  
5       per year.

6                       Here in this graph the annual average and  
7       maximum effective doses to nuclear energy workers, we call  
8       NEWS, at the facility or presented. All employees at the  
9       facility are designated as nuclear energy workers and all  
10      are monitored for radiation exposures.

11                      The maximum annual effective dose to a  
12      worker was 15.9 millisieverts. This is 32% of the CNSC's  
13      regulatory limit of 50 millisieverts per year. For the  
14      five year dosimetry period from 2006 to 2010 the maximum  
15      cumulative effective dose to a worker was 58.2  
16      millisieverts.

17                      This is 58% of the CNSC's regulatory limit  
18      of 100 millisieverts per five years. As required by the  
19      CNSC Cameo has established monthly and quarterly action  
20      levels for radiation doses to workers.

21                      These action levels have been set well  
22      below the regulatory limit and were not exceeded during  
23      the review period. In this and next four slides we will  
24      present key performance statistics for the safety and  
25      control areas of environmental protection.

1                    Cameco continues to maintain a  
2                    comprehensive environmental protection program at the  
3                    facility. Under this program Cameco controls and monitors  
4                    releases of nuclear and hazardous substances to the  
5                    environment.

6                    This figure shows the annual average  
7                    uranium emission rates from the facility during 2007 to  
8                    2011. The 2011 data is as of June 30th. The current  
9                    license limit for uranium emissions is based on derived  
10                   release limit equivalent to the CNSC's regulatory dose  
11                   limit of 1 millisievert per year to a member of the  
12                   public.

13                   The proposed new license limit for uranium  
14                   emissions is 1/20th of the current one and is based on a  
15                   public dose of 0.05 millisievert per year. The annual  
16                   average uranium emission rates were in the range of 0.0001  
17                   to 0.00015 kilograms per hour during 2007 to 2011.

18                   These emission rates are well below the  
19                   current and the proposed license limits. The total amount  
20                   of airborne uranium released into the environment per year  
21                   was in the range of 3.1 to 5.4 kilograms during 2007 to  
22                   2011.

23                   This figure shows the annual average  
24                   uranium releases from the facility through liquid effluent  
25                   during 2007 to 2011. The 2011 data is as of June 30th.

1 The annual average uranium concentration in liquid  
2 effluents released were in the range of 0.01 to 0.03  
3 milligrams per litre during 2007 to 2011.

4 The uranium concentration in liquid  
5 effluent discharges are well below the current and the  
6 proposed license limit. The corresponding total amount of  
7 uranium released from the facility through liquid  
8 effluents into the environment per year was in the range  
9 of 2.1 to 4.8 kilograms.

10 We now present air quality monitoring data  
11 in the receiving environment called ambient air. The CNSC  
12 requires Cameco to monitor uranium concentration in the  
13 ambient air to demonstrate compliance with the Ontario  
14 Ministry of the Environment air quality standard for  
15 uranium.

16 The graph here shows the results of  
17 Cameco's ambient air quality for uranium from five  
18 sampling stations located on and around the facility. The  
19 maximum annual average uranium concentration measured by  
20 these five sampling stations was 0.0003 micrograms per  
21 cubic metre during the period from 2007 to 2011.

22 This shows that uranium concentration in  
23 ambient air around the facility are well below the Ontario  
24 Ministry of the Environment standard of 0.03 microgram per  
25 cubic metre.

1                   This graph shows the results of Cameco's  
2 soil monitoring programs as required by the CNSC license.  
3 The results from 2007 to 2010 demonstrate that there is no  
4 accumulation of uranium in soil in the vicinity of the  
5 facility.

6                   Uranium concentration in soil remain at the  
7 Ontario background level of 2 microgram per gram and are  
8 well below the Ontario Ministry of the Environment's  
9 guideline of 23 microgram per gram of uranium in soil for  
10 residential land.

11                   This graph shows the results of Cameco's  
12 surface water monitoring for uranium concentration in the  
13 Lake Huron and Mississagi River. The monitoring results  
14 from 2007 to 2011 demonstrate that the uranium  
15 concentration in surface water are at or below background  
16 levels of 0.6 microgram per litre in Lake Huron.

17                   The Ontario Ministry of the Environment  
18 guidelines for uranium in surface water is 5 microgram per  
19 litre. Based on the environmental and source monitoring  
20 results presented in the last five slides, it is evident  
21 that the uranium releases from the facility are not  
22 causing any adverse effects on the receiving environment,  
23 air, surface water and soil.

24                   Overall, CNSC staff is satisfied with  
25 Cameco's implementation of its environmental protection

1 program. Regarding conventional health and safety, Cameco  
2 has an effective health and safety program in place to  
3 protect workers from industrial hazards at the facility.

4 Cameco has a facility health and safety  
5 committee which conduct monthly safety inspections,  
6 reviews incidents for causes and corrective actions and  
7 recommends health and safety improvements.

8 During the current licensing period, Cameco  
9 operated the facility safely without any loss time  
10 injuries to workers. There were no other reportable  
11 events. Cameco's performance in conventional health and  
12 safety is satisfactory.

13 Now we will move on to the third part of  
14 the presentation about Day 2 supplementary information.  
15 At the Day 1 hearing the Commission requested Cameco to  
16 provide additional information on its public consultation,  
17 groundwater monitoring well locations, and potential  
18 flooding of the facility site. As requested Cameco  
19 submitted this additional information and made a  
20 presentation to the Commission earlier.

21 CNSC staff has nothing to add, however, we  
22 will confirm that Cameco's additional information was  
23 reviewed and found to be satisfactory. I will pass the  
24 presentation back to Mr. Elder to conclude.

25 **MR. ELDER:** Thank you.

1                   So our conclusions remain unchanged since  
2                   our Day 1 presentation. The first is that Cameco's  
3                   application for licence renewal met the CNSC's  
4                   requirements; that Cameco has operated the facility in  
5                   compliance with CNSC's regulatory requirements during the  
6                   current licence period; and that Cameco is qualified to  
7                   carry on the activities under -- on the proposed new  
8                   licence, including the longer licence terms and production  
9                   increase.

10                   Based on these conclusions, CNSC staff  
11                   recommend the Commission approve Cameco's request to  
12                   modify its existing licence to increase annual production  
13                   by 33 percent. We also recommend that the Commission  
14                   accept Cameco's revised amount of decommissioning  
15                   financial guarantee of \$38.6 million, and approve issuance  
16                   of the proposed 10-year operating licence for the Blind  
17                   River facility.

18                   This concludes our presentation. We are  
19                   now available to answer any questions.

20                   **THE CHAIRMAN:** Thank you. I think what  
21                   we're going to do next is we'll wait with the question  
22                   period for Commissioners until after we've heard from all  
23                   the interventions.

24                   So what I would like to do is start with  
25                   the intervention. I would like to remind everybody that

1 we've allotted 10 minutes for intervention, because we've  
2 read in great detail, all the presentations and I must  
3 tell you that some of those presentations were very, very  
4 helpful.

5 And a case in point is exactly the first  
6 presentation here that comes from the Serpent River First  
7 Nation, as outlined in CMD 11-H18.35 and 11-H81.35A (sic).  
8 And I understand that Mr. Meawasige and Mr. Leeder were  
9 making the presentation, so please proceed.

10 Thank you.

11  
12 **11-H18.35 / 11-H18.35A**

13 **Oral presentation by**

14 **Serpent River First Nation**

15  
16 **MR. MEAWASIGE:** For the record, Nishin  
17 Meawasige, Serpent River First Nation. Thank you very  
18 much for this opportunity and good morning.

19 David and myself are providing this  
20 presentation on behalf of Serpent River First Nation and  
21 Hutchinson Environmental Sciences Limited.

22 I'd like to acknowledge the Commission and  
23 those individuals at the hearing today for this  
24 opportunity and to thank to Commission for the investment  
25 that they've made in our community to contribute to this

1 process.

2 I firmly believe that in our community  
3 there is significant value for all parties in including  
4 our community as an intervenor in this process and  
5 contributing to this process to ensure that enhancements  
6 and another perspective is considered. We've prepared a  
7 brief presentation, under 10 minutes, I promise.

8 Serpent River First Nation is considering a  
9 balanced and constructive approach. It's important for us  
10 to contribute to the dialogue around the renewal process  
11 for the Blind River refinery, and it's important to  
12 understand the perspective and the context in which our  
13 presentation has been developed and understanding the tone  
14 of our review and our recommendations.

15 Although most of our presentation will  
16 relate to the review, I just want to provide that context  
17 and David will provide the presentation in terms of that  
18 review and recommendation.

19 Our community of Serpent River First Nation  
20 experienced much growth over the past -- over the recent  
21 years and with that comes the diligent responsibility of  
22 ensuring that we're measuring impact. Impact in  
23 environmental means, impact in social means, impact in our  
24 cultural means, and impact in the economy in the area.

25 It's important for us to consider

1       consultation with our community members, but it's also  
2       important for us to understand how our community falls  
3       within the region and the planning process that relates to  
4       and may be impacted by the uranium industry in our area.

5                I think it's -- the mitigation and  
6       measuring that impact -- is very important for our  
7       community and I think the consultation -- the level of  
8       consultation and the areas of consultation are directly  
9       related to that as well.

10               The uranium industry on the north shore, I  
11       think, is very evident. There is a timeline to consider  
12       with respect to what activities have taken place in the  
13       past in our area, impacting our communities, and to  
14       understand where we are now and where we're moving into  
15       the future. And this opportunity give Serpent River First  
16       Nation and our -- most importantly -- our region, an  
17       opportunity to open the dialogue on uranium and build  
18       relationships, and to talk about uranium in consideration  
19       to some of the impacts that have taken place and some of  
20       the future activities that are not being discussed during  
21       this hearing. But we need to understand most importantly  
22       the cumulative impacts of the uranium industry in our  
23       region.

24               We've got a variety of different activities  
25       that have happened. Just some examples on this slide

1 relating to -- we've got tailings management areas in the  
2 Elliot Lake area that fall within the Serpent River  
3 watershed. We've also got the Cameco Corporation in Blind  
4 River with respect to their refinery and future  
5 activities, as it is well known to be considered in our  
6 area.

7           It's important and we see this as an  
8 opportunity and a responsibility as a First Nation and as  
9 a contributing community to the north shore, to contribute  
10 to improve the approach.

11           We strongly believe that change happens  
12 from the grassroots level. That communities such as  
13 Serpent River First Nation and our neighbouring  
14 communities have an obligation to take a leadership role  
15 in ensuring that we are raising the bar and ensuring that  
16 minimum standards are not -- are met, but we must always  
17 drive to exceed them.

18           The Cameco Corporation -- we've met with a  
19 few times since doing the work -- doing this work, and  
20 it's been very much evident -- and I'd like to acknowledge  
21 the Cameco staff, Chris and Joe, for taking the time to  
22 work with our community and to sit down considering fairly  
23 tight timelines to understand and start building that  
24 dialogue between the two communities. I think it would  
25 have been more preferred to have an opportunity to talk

1 about and learn more about what each of our organizations  
2 do prior to this hearing. But this has been, I guess, the  
3 spark to create a relationship in the area and that's the  
4 way it's going to be.

5 So it's important, you know, to recognize  
6 Cameco's adherence, and we recognize that Cameco is  
7 considering a triple bottom line approach. The impacts of  
8 ensuring that there's environmental performance, adherence  
9 in decreasing admissions and working diligently to do so.  
10 We also recognize the importance of third party review and  
11 evaluation ongoing.

12 We respect and acknowledge the social  
13 responsibility efforts that Cameco Corporation has  
14 followed through on in the region and the education  
15 awareness, and the investment in the communities  
16 surrounding us and the community that Cameco Corporation  
17 resides in. And we recognize that that's an important  
18 part to opening that dialogue, and of course the economic  
19 performance.

20 In operation since 1983, Cameco  
21 Corporation, clearly it's been around for a number of  
22 years and has been around for a reason, and we just wish  
23 to work with Cameco and provide a contribution to  
24 increasing those efficiencies.

25 It's my last slide before David will take

1 over the presentation. I just wanted to speak to Serpent  
2 River as holding the responsibility. We've got an  
3 emerging young force in our community. Our young people  
4 are telling us to raise the bar and not for the future,  
5 but now, and that resonates very clearly with me and the  
6 work that we do within the community.

7 And in order for us to do that diligently  
8 and responsibly, to maintain emotion to -- or to use  
9 emotion to maintain passion but without interfering with  
10 the work and ensuring that there's clarity, we want to  
11 come forward with review and recommendations based on the  
12 raw data, the facts and the science.

13 And with that, we've procured the  
14 assistance of Hutchinson Environmental Sciences to conduct  
15 that review and provide recommendations that we would wish  
16 that the CNSC and the Commission to consider in moving  
17 forward with this licence renewal.

18 So with that, I thank you and I will pass  
19 it on to David.

20 **MR. LEEDER:** Thank you, Nishin.

21 For the record, David Leeder, representing  
22 Hutchinson Environmental Sciences.

23 If we start to run tight on time, just give  
24 me a nod and any issues that are outstanding, if they're  
25 pertinent, we can maybe address them in the discussion

1 session.

2 So our scope of work for this project was  
3 to identify potential environmental concerns at the Blind  
4 River Uranium Processing Facility.

5 To do this, we reviewed environmental  
6 documents provided by the CNSC supporting the licence and  
7 by Cameco for the same and some background environmental  
8 documents provided by the Serpent River First Nation.

9 Based on the documents we reviewed, we  
10 identified environmental emissions and discharges from the  
11 facility, we assessed if there is sufficient monitoring  
12 and reporting in place to describe the environmental  
13 effect or possible environmental effects from these  
14 emissions and discharges, if any were occurring.

15 And if sufficient monitoring and reporting  
16 was not demonstrated in the documents we were provided, we  
17 recommended programs to be included in the 2012 licence  
18 that would monitor and report facility emission and  
19 discharge effects on environmental receptors.

20 I should note that the scope of our  
21 document review was somewhat limited and, as a result of  
22 that, we focused on, really, what Serpent River would get  
23 the biggest bang for their buck out of, so we focused on  
24 direct end of pipe discharges from the facility.

25 These end of pipe environmental discharges

1 consist of treated wastewater from the on-site treatment  
2 plant, treated wastewater discharges to Lake Huron via an  
3 effluent pipe and a diffuser approximately 500 metres  
4 offshore into the lake, surface water via a perimeter  
5 ditch outside the fence of the facility, the discharges to  
6 the Mississauga River to the southwest, air emissions from  
7 the refinery process stacks and H-VAC systems, air  
8 emissions from an on-site rubbish incinerator and a new  
9 off-site drum disposal recycling program.

10 So findings and recommendations. Regarding  
11 the first end of pipe discharge, surface water runoff,  
12 several contaminants associated with typical industrial  
13 and commercial processes are not currently being sampled  
14 in the surface water runoff monitoring program.

15 Monitoring is conducted at the discharge of  
16 the perimeter ditch to the river. However, this  
17 monitoring is not conducted on a frequency that  
18 necessarily captures the bulk of contaminants that would  
19 run off the outside of the site during storm water events  
20 or spring runoff.

21 Therefore, our recommendations were to  
22 collect a water sample from the perimeter ditch during the  
23 first flush of any rainfall event with 25 millimetres of  
24 precipitation or more. Collecting a sample during the  
25 first flush represents when you get the first slug of

1 water that comes off of a site and would contain the most  
2 amount of contaminants accumulated since the last  
3 precipitation event.

4 We also recommend that weekly water samples  
5 be collected from the ditch discharge during spring runoff  
6 conditions and snow melt.

7 We recommend that each water sample be  
8 analysed for the existing parameters that are related to  
9 uranium processing, plus the parameters listed on the  
10 slide presented here that are related to typical  
11 industrial and commercial processes.

12 And if concerns are identified with the  
13 monitoring, we recommend changes in site management such  
14 as lining the perimeter ditch and collecting its runoff  
15 for treatment or assessing groundwater for potential  
16 infiltration effects if it looks there's appreciable water  
17 loss through the current permeable ditch.

18 Moving on to wastewater treatment plant  
19 discharges. When this licence was granted, SENES  
20 Consultant or prior to this licence being granted SENES  
21 Consultant current licence conducted a wastewater plume  
22 delineation and they recommended that be updated in a five  
23 to 10-year period.

24 The current -- based on SENES' prior study  
25 conducted in 2006, the current locations, base extent and

1 number of receiving water samples in Lake Huron may not  
2 provide adequate representation of the effluent impacts to  
3 the lake.

4 This is a result of sample location, depth,  
5 et cetera.

6 Additionally, some parameters not related  
7 to uranium but related to the processing that occurs on  
8 the site may be present in the discharge that are not  
9 currently being monitored.

10 So to address these concerns, we recommend  
11 that a new plume delineation update be conducted as per  
12 SENES recommendations in 2006.

13 Based on this plume delineation, we  
14 recommend revising, if necessary, the current surface  
15 water sampling program, which would include sampling  
16 locations and depths that are accurate to represent the  
17 attenuation zone, that is, the zone of potential  
18 contaminant migration into the lake.

19 We also recommend that Cameco continues its  
20 current practice of sampling water during batch discharges  
21 from the pipe which would sample a worst-case scenario and  
22 we recommend that the parameters that are currently of  
23 concern but not being monitored be added to the analysis  
24 list.

25 In their 2006 work, SENES also conducted a

1 sediment sampling program around the outfall to determine  
2 sediment impacts. They recommended this program be  
3 updated in five to 10 years, and we therefore recommend  
4 that that be conducted.

5 We recommend that the sediment sampling  
6 program and the plume delineation program be conducted in  
7 2012 at the onset of the licence so that the findings of  
8 those two studies can be used to inform the new licence  
9 requirements and monitoring for the 10-year period should  
10 it be granted.

11 Regarding drum disposal. Cameco, in their  
12 current licence term, implemented a drum recycling  
13 program. The drums are decontaminated UO3 powder via a  
14 grit blaster. The process appears to be very robust and  
15 CNSC staff approve of the method, as well as the method of  
16 confirming that drums have been decontaminated.

17 However, we haven't seen that the method is  
18 going to be required in the new licence and in case that  
19 method changes, we recommend that CNSC's requirements for  
20 monitoring of decontamination of drums be added to the  
21 licence.

22 Regarding air discharges, we didn't go into  
23 any detail regarding air emission dispersion modelling or  
24 anything of that nature. We did, however, look at the  
25 Certificates of Approval for the existing air emissions

1 from the facility.

2 In our review, we found that the  
3 Certificate of Approval for air emissions, that is, from  
4 the H-VAC systems and process stacks, does not cover the  
5 proposed increase to 24,000 tonnes of UO3 per year. It  
6 only covers the current -- the current licence volume of  
7 18,000 and it also doesn't appear that burning of waste  
8 oil is covered in the CofA for the incinerator.

9 There has been some discussion that waste  
10 oil, from what we've heard from other review parties, may  
11 be burned in the incinerator.

12 So as a result of that, we recommend that  
13 should these activities be undertaken they be licensed by  
14 the MOE and that the CNSC licence reflect the MOE  
15 requirements, which brings us to our next slide,  
16 regulatory limits and reporting.

17 In summary, the facility's discharges to  
18 air and water are -- the monitoring results are from --  
19 from those discharges are reported to both the MOE and  
20 CNSC.

21 However, based on our review, it looks like  
22 certain aspects are reported to the MOE, certain aspects  
23 are reported to CNSC and there may not be a lot of  
24 communication between those two agencies to determine if  
25 there's any effects that are occurring in each of their

1       respective review areas that could be a concern to the  
2       other.

3                       Also, because there's two regulatory  
4       agencies that are involved, there's some confusion as to  
5       what regulatory limits from environmental compliance apply  
6       to certain parameters and media and what types of a limit  
7       would apply, i.e. if it's an environment quality criteria  
8       or if it's a criteria that's been developed on a site-  
9       specific basis for the Cameco Blind River facility.

10                      Monitoring reports submitted to each of the  
11       two agencies often over-simplify the monitoring results  
12       that have been observed or they use statistics that could  
13       mask unacceptable trends.

14                      So to address this, we recommend that the  
15       new licence clearly state the responsibilities of each  
16       regulating body and the limits or environmental quality  
17       guidelines that apply to each monitored parameter and each  
18       media monitored.

19                      We also recommend that the regulatory  
20       review between MOE and CNSC be harmonized and that it  
21       encourage inter-agency review and communication.  
22       Furthermore, we recommend that loading limits should be  
23       established for the nutrients that are discharged to Lake  
24       Huron.

25                      Currently concentrations are regulated, but

1 loading limits are not. A loading limit is a  
2 concentration times the volume of the contaminate  
3 discharge, and is very important for understanding long  
4 term impacts in the environment.

5 We also recommend that monitoring results  
6 should be presented with various statistical data that is  
7 -- that's common to discharges from sewage treatment  
8 plants and other types of large industrial runoff.

9 And in summary, I'll pass the mike back to  
10 Nishin.

11 **MR. MEAWASIGE:** Thank you, David.

12 So in summary, Cameco Corporation appears  
13 to have a positive environmental compliance record and has  
14 assured Serpent River First Nation that it's committed to  
15 protecting the environment.

16 Based on the supporting documents reviewed,  
17 changes to environmental monitoring and reporting are  
18 needed to confirm that the facility is having an  
19 acceptable environmental impact.

20 The recommended changes are relatively  
21 minor in nature, but will provide robust mechanisms to  
22 monitor environmental impacts, if any, to discharge  
23 emission receiving environments. Serpent River First  
24 Nation and Hutchinson Environmental recommend that CNSC  
25 include terms in the license to address the review

1 recommendations.

2 I thank you for your time and I'm open to  
3 questions.

4 **THE CHAIRMAN:** Thank you. That was the  
5 longest 10 minutes I've seen in a long time. However, we  
6 found it very, very useful and that's why I thought it was  
7 worthwhile to hear you out.

8 And I'm sure we got lots of questions. And  
9 I understand that the Ministry of Environment is here, and  
10 maybe he can join us. I don't think they realize how easy  
11 it is to harmonize between the two organizations, but  
12 we'll see if we can tackle that.

13 But what I suggest we do -- there's a lot  
14 of material here and to efficiently deal with this maybe,  
15 let me propose -- let me start with CNSC and with Cameco.

16 Are there any recommendation that without  
17 hesitation you'll accept holus-bolus right now so we can  
18 take it off the table and maybe concentrate on those that  
19 will be a challenge? Go ahead.

20 **MR. ELDER:** Peter Elder for the record.

21 I'll start with the MOE certificates of  
22 approval. They are required. So I mean in terms of -- I  
23 think in terms of -- there's a chicken and egg. Someone  
24 has to move first.

25 So I don't think you should wait to amend

1 the licence for the production increase. But they cannot  
2 actually do the production increase until they have the  
3 appropriate Ministry of Environment certificates. So they  
4 are harmonized on that one.

5 So we fully agree that in terms of the  
6 certificates from the Province is for both the waste oil  
7 and the production increase, they need those certificates  
8 and they will -- not be allowed to do this until they have  
9 those certificates in place.

10 The other ones -- a comment on the drum  
11 disposal. I think our requirements are in our  
12 regulations. So what has to be done is in our  
13 regulations. I would agree that we have a licence  
14 condition handbook that the specifics of how Cameco is now  
15 meeting those is appropriate to put into those handbooks  
16 to give us a warning if they change them. But the actual  
17 requirements to meet the decontamination are from our  
18 regulations.

19 **THE CHAIRMAN:** I think there were a lot of  
20 recommendations and in my view, just -- maybe if adopted,  
21 will just clarify existing regulations ---

22 **MR. ELDER:** Right.

23 **THE CHAIRMAN:** --- and make them more  
24 transparent as to who does what.

25 **MR. ELDER:** And there's a who does what,

1 and that's what I was saying in terms of the who does what  
2 recommendation.

3 I agree there would be a value in our  
4 licence condition handbook of clarifying the -- even to  
5 us, to staff, to everybody, who does what versus CNSC and  
6 MOE. So there's no harm in that.

7 There is, you know, there is -- we do  
8 cooperate with MOE quite closely on this -- on these  
9 facilities, and we try to harmonize and try to avoid  
10 duplication.

11 **THE CHAIRMAN:** So is that a commitment to  
12 take a look at the licence and see what can be done?

13 **MR. ELDER:** I -- again, this is -- I would  
14 say this is a license condition handbook where there will  
15 be -- we'll -- we have a table already for some of the  
16 facilities. I see no reason why we wouldn't put that  
17 table into the licence condition handbook.

18 **THE CHAIRMAN:** Will it cause us a lot of  
19 legal issues if ---

20 **MR. ELDER:** No ---

21 **THE CHAIRMAN:** --- we say for this thing  
22 you need MOE licence?

23 **MR. ELDER:** No, that's -- that's already --

24 -

25 **THE CHAIRMAN:** In our -- in our LCH?

1                   **MR. ELDER:** Well in the -- in Cameco's  
2 application, they said they will get the appropriate  
3 provincial certificates. That's already -- and we say you  
4 said in an application you'd -- the licence says you  
5 actually do it.

6                   **THE CHAIRMAN:** Good. Anything else you can  
7 accept?

8                   **MR. ELDER:** Some of them I think I would  
9 like Cameco's opinion first before -- some of them sound  
10 like a good idea. I don't know about feasibility.

11                   **THE CHAIRMAN:** Okay. Cameco. Anything  
12 that you can say yes, right away, right now?

13                   **MR. ASTLES:** For the record, Chris Astles.  
14 Before I say yes to anything, I do want to  
15 thank Nishin for coming. It's great that we've opened  
16 these dialogues with Serpent River First Nation and  
17 expanding our community base to other communities.

18                   Just one clarification, though, he did  
19 refer to the C of A for the burning of oil. We do not  
20 burn oil in our incinerator. We do not have a C of A for  
21 burning of oil.

22                   Some of the other activities, some good  
23 ideas have come out of this submission and -- stuff like  
24 the plume delineation. The CNSC recommendation was  
25 sometime in the next five to ten years. We recognize that

1 and we're planning on doing it anyways, so they brought  
2 that forward, so that's very nice, very good.

3 The perimeter ditch, we recognize that the  
4 majority of the property flow is inwards on the land.  
5 We've clarified communications with them that that ditch  
6 is a sandy ditch and the water doesn't actually flow, but  
7 we can do more studies on that to verify or even prevent  
8 inflow from it to the Mississagi River. So there's work  
9 we can do on that as well.

10 And as far as some of the analysis they're  
11 looking at, they're -- the regulation they're referring to  
12 is a use of land regulation, I believe, change -- change  
13 of land use regulation.

14 We're not planning on changing from say  
15 from industrial to commercial or residential. But we can  
16 definitely look at some of the sampling requirements  
17 they're looking at to see how they pertain to us.

18 **MR. LEEDER:** Yeah, if I can -- David  
19 Leeder, Hutchinson Environmental. If I can just clarify  
20 that, Chris.

21 It's not so much that we're suggesting you  
22 meet Ontario Regulation 153. But it's that you -- there'  
23 be other parameters that are added to your existing  
24 analysis list that could be running off the site and could  
25 be having an environmental impact.

1                   So Ontario Regulation 153 provides a fairly  
2 robust list of metals that are typically associated with  
3 commercial and industrial processes and urban runoff,  
4 which is why we -- why we site it as a suggested parameter  
5 list.

6                   **THE CHAIRMAN:** I don't know if you were  
7 here this morning or yesterday where there was a  
8 clarification about an annual report that is a new kind of  
9 an approach, it will be an annual report.

10                   Regardless of the licence length, there  
11 will be an annual report tabled where you can actually  
12 hopefully monitor some of the progress against some of  
13 those new parameters measurement and performance. And  
14 that would give you another opportunity to actually  
15 monitor progress against some of those suggestions.

16                   CNSC, you wanted to say something about  
17 that?

18                   **MR. ELDER:** Just to clarify in terms of --  
19 Cameco was -- always had annual compliance report  
20 environmental monitoring. In terms of the new licence and  
21 what their practice is, those -- is making sure that those  
22 are publicly available from Cameco.

23                   So again, this is -- ours will be a summary  
24 of those ones to see if there are any concerns, but we  
25 would also make sure that it's very -- it's very clear

1 where the detailed information is available.

2 **THE CHAIRMAN:** Okay, I -- we interrupted  
3 you. Go ahead.

4 **MR. DeGRAW:** Joe DeGraw, for the record.

5 One other comment with respect to the C of  
6 A for air emissions. There -- it's correct that our  
7 current C of A does not cover the proposed production  
8 increase to 24,000 tonnes a year. It currently states  
9 18,000, which matches what's in our CNSC licence. But we  
10 did apply a number of years ago to amend that approval.  
11 That's still going through the MOE review process.

12 And in that amendment, we did request that  
13 that be changed to 24,000. And we expect to receive that  
14 approval early in the new year. And our understanding is  
15 -- and MOE staff can clarify or confirm that, that  
16 probably won't be issued until our new CNSC licence gets  
17 issued.

18 **THE CHAIRMAN:** MOE, there's an opportunity  
19 for you to comment on what has just been presented.

20 **MR. DORSCHT:** Sure. For the record, Ron  
21 Dorscht with the Sault Ste. Marie Office, Ministry of the  
22 Environment.

23 What Joe DeGraw just said there with  
24 respect to the application for the -- amending the  
25 production increase. It is before our Approvals Branch.

1 And it is -- it is like the chicken and egg sort of thing.  
2 We don't want to issue, "Here you're approved" for an  
3 increase until CNSC does as well. So there will be kind  
4 of synchronized phone calls to make sure that we're not  
5 contradicting each other.

6 **THE CHAIRMAN:** Thank you.

7 Maybe I can open it up. Dr. Barriault, you  
8 want to start?

9 **MEMBER BARRIAULT:** Yes, thank you, Mr.  
10 Chairman.

11 Thanks for the presentation, by the way.  
12 One of the issues that you've raised and I don't know if  
13 it's feasible is lining in the ditches, and I guess that  
14 would resolve the problem of a sandy ditch. Is that  
15 correct?

16 Yes, go ahead.

17 **MR. LEEDER:** Yeah, if I can intervene on  
18 that. We're not necessarily recommending that the ditch  
19 be lined. I know from conversations with Joe that there  
20 is very little runoff that comes out of the ditch that  
21 they've seen.

22 This is probably true during the times of  
23 year when the ground is not frozen. In the springtime,  
24 although there's -- most of the site drains inward there  
25 is a considerable perimeter that drains into the ditch.

1                   In the springtime the ground is going to be  
2 frozen. You're not going to have a great deal of water  
3 infiltration, your snow runoff is going to come out of the  
4 ditch. We would only suggest lining the ditch if there is  
5 going to be some sort of collection because lining it,  
6 although you're going to cut off a groundwater pathway,  
7 you are going to speed up the rate of water flow into the  
8 river and we wouldn't necessarily recommend that.

9                   **MEMBER BARRIAULT:** Okay. So I'll get your  
10 presentation on Slide 10 and I guess it's the  
11 recommendations, the last bullet.

12                  **MR. LEEDER:** Sorry, what's the title on  
13 that slide?

14                  **MEMBER BARRIAULT:** Surface water runoff,  
15 Slide 10, and the last bullet.

16                  **MR. LEEDER:** Yeah.

17                  **MEMBER BARRIAULT:** You mention lining a  
18 ditch and that's the reason why I raised it.

19                  **MR. LEEDER:** Yeah. No, only if concerns  
20 are identified.

21                  **MEMBER BARRIAULT:** Okay.

22                  **MR. LEEDER:** We listed it as an example of  
23 an additional site management issue that you could take.  
24 And again in there we noted that it should be collected  
25 and treated from runoff if something like that was to

1       happen.

2                   **MEMBER BARRIAULT:** To Cameco, do you have  
3 settling ponds to pick up the surface runoff?

4                   **MR. ASTLES:** Sorry, could you repeat that?

5                   **MEMBER BARRIAULT:** Do you have settling  
6 ponds to pick up your surface runoff?

7                   **MR. ASTLES:** Correct. All the property on  
8 the -- within the controlled area in the fence line slopes  
9 towards paved ditches. We collect that rainwater runoff  
10 and it goes to our ponds, and we analyze it prior to  
11 discharging it.

12                   **MEMBER BARRIAULT:** Okay. And do you treat  
13 it if there's any ---

14                   **MR. ASTLES:** Chris Astles, for the record.  
15 Treatment, we've never had to treat that  
16 water because it does meet discharge limits.

17                   **MEMBER BARRIAULT:** It meets the standards?

18                   **MR. ASTLES:** Yes.

19                   **MEMBER BARRIAULT:** Okay, thank you.

20                   I guess the other question is regards to  
21 the air emission and the increase in productivity of the  
22 plant; can you keep your air emission constant or will the  
23 increase be minimal in terms of air emissions from the  
24 plant?

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

1           As presented in the EASR that we submitted  
2           to the CNSC earlier in this licence period the air  
3           emissions are going to increase marginally but still stay  
4           extremely low.

5           So it's because of additional operating  
6           days for the refinery for the increased production.

7           **MEMBER BARRIAULT:** Production. Is CNSC  
8           staff comfortable with the ---

9           **DR. THOMPSON:** Patsy Thompson, for the  
10          record.

11          The environmental assessment that the  
12          Commission approved did indicate slight increases in  
13          emissions for the parameters that are being monitored.  
14          And the conclusions were that this would not result in any  
15          significant adverse environmental effect.

16          **MEMBER BARRIAULT:** Thank you.

17          **THE CHAIRMAN:** Thank you.

18          Any other questions? Dr. McDill?

19          **MEMBER MCDILL:** Thank you.

20          The Intervenor also asks for monthly means,  
21          maximums, minimums and 75<sup>th</sup> percentile values to capture  
22          spikes, for example. That's in the written submission on  
23          page 9.

24          Is that something that is possible? The  
25          data probably exists. I'm not sure it's being reported.

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

2                   I guess in one aspect we'd have to review  
3                   what that data's going to look like. But our reports that  
4                   we do present to the -- or submit to the CNSC are based on  
5                   the criteria they like to see and the format they've  
6                   requested from us.

7                   So if it's requested of us it's -- we can  
8                   do it.

9                   **MEMBER McDILL:** Back to CNSC.

10                  **DR. THOMPSON:** Patsy Thompson, for the  
11                  record.

12                  When we reviewed the recommendations that  
13                  have been made by the Intervenor it's certainly one of the  
14                  recommendations that is easy to implement and corresponds  
15                  to what many other licensees do.

16                  And it is a useful metrics to follow trends  
17                  and variability, as the Intervenor has mentioned. I would  
18                  like also to ---

19                  **THE CHAIRMAN:** So is that a yes?

20                  **DR. THOMPSON:** So the answer is yes.

21                  **THE CHAIRMAN:** I just want to make sure,  
22                  there's a bottom line here. Okay.

23                  **MEMBER McDILL:** You were going to say  
24                  something more?

25                  **DR. THOMPSON:** I was -- sorry; Patsy

1 Thompson for the record.

2 I was going to add that the recommended  
3 parameters in terms of VOC, pH's and others were  
4 considered in designing the monitoring program.

5 There was a risk assessment done using all  
6 the parameters that are in regulations and other  
7 documents. And through a screening approach moving the  
8 risk assessment forward, they were identified as not being  
9 significant for this site. And that's the reason they  
10 haven't been included in the monitoring program.

11 There's a new CSA standard on environmental  
12 monitoring requirements which will be implemented and as  
13 the basis for implementation of this standard, the  
14 licensee will be expected to review their monitoring  
15 program and make adjustments to meet the new standard.

16 So this would be an opportunity to look at  
17 those recommendations more closely.

18 **MEMBER MCDILL:** Thank you.

19 My next question is actually a repeat of a  
20 question I asked at Day 1, I believe. And I asked if  
21 Cameco would pose the question to the First Nation.

22 Mr. Meawasige -- pronounced correctly?  
23 Meawasige. Thank you. Is there in your community either  
24 a written or an oral history of flooding before the dams?

25 **MR. MEAWASIGE:** Not that I'm aware of at

1 this point but I can definitely look into it and  
2 communicate that back and work with Cameco on that.

3 **MEMBER McDILL:** Because in a worst-case  
4 scenario which -- beyond design-basis kind of scenario  
5 that's the one that's going to be important, I think.

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

7 As a follow up to that conversation I did  
8 talk to the Chief Doug Davidge (phonetic) at the time and  
9 other council members just to confirm in their memory or  
10 history have they ever heard of flooding in that area and  
11 the answer was no.

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

13 **THE CHAIRMAN:** Thank you. Monsieur Harvey?

14 **MEMBER HARVEY:** Just how is it going to  
15 work? I mean we got many recommendation here and Cameco  
16 said yes it's very nice and you explained something and  
17 will there be a review of that and say this can -- that  
18 it's possible to include that in the licence or in the  
19 handbook?

20 And otherwise it could just stay on the  
21 table and there will be no response to certain of those  
22 recommendations.

23 **MR. ELDER:** So Peter Elder, for the record.

24 I think what we've heard so far is mostly  
25 what I would consider changes to the licence condition

1 handbook. So we will review the transcripts and go  
2 through them all and say these are the changes we made as  
3 a result of the transcripts.

4 And I guess on this one we will confirm  
5 with Cameco and outline confirming with Serpent River  
6 First Nation as well to make sure that we've captured all  
7 the commitments.

8 And we will go things back to Cameco so if  
9 they say they're going to update that diffuser study  
10 please give us a date so we can track it as well.

11 **MEMBER HARVEY:** Thank you.

12 **THE CHAIRMAN:** I would hope also that this  
13 new relationship that's been developed is an ongoing basis  
14 which I thought I heard and it's not because that's the  
15 licence renewal came in. That's why I'm offering the  
16 annual review is another mechanism to monitoring what  
17 happened.

18 And if there's anything that you don't  
19 think is being applied properly, et cetera, you have  
20 another opportunity to come forth and input. So it's an  
21 ongoing process.

22 **MR. MEAWASIGE:** For the record, Nishin  
23 Meawasige.

24 The intent by Serpent River First Nation is  
25 to open the dialogue in the region and the relationship --

1 the benefits and the intent is to pull in our other  
2 communities as well and have the discussion about the  
3 operations in Blind River, about the operations in Elliott  
4 Lake, about future operations to ensure that everyone --  
5 there's an understanding in the region in terms of what  
6 we're looking at and what we're considering in terms of  
7 moving into the future.

8 And we see this as a -- Serpent River sees  
9 this as a great opportunity to establish that and where we  
10 look forward to continuing with that relationship.

11 Thank you.

12 **THE CHAIRMAN:** Monsieur Harvey? C'est  
13 tout? Anybody else? Mr. Tolgyesi?

14 **MEMBER TOLGYESI:** In fact I have maybe two.  
15 How far is the First Nation, Serpent River  
16 First Nation community located from a site.

17 **MR. MEAWASIGE:** We're located approximately  
18 40 kilometres, Chris? Yeah.

19 **MEMBER TOLGYESI:** And how many members of  
20 your community are working on the site?

21 **MR. MEAWASIGE:** You might be better at  
22 answering that question, Chris.

23 **MR. ASTLES:** Chris Astles, for the record.  
24 Currently two members of their community  
25 are employees of Cameco.

1                   **MEMBER TOLGYESI:** Two of how many employees  
2 you have; 190?

3                   **MR. ASTLES:** Sorry. We have about 155  
4 employees.

5                   **MEMBER TOLGYESI:** Okay. And the last one  
6 is how you ensure that drums destined to be recycled with  
7 your local scrap dealer are properly decontaminated?

8                   **MR. ASTLES:** Chris Astles, for the record.  
9                   Our radiation protection program defines  
10 what the release limit is for stuff like the scrap steel.  
11 And we have to monitor them to make sure they are within  
12 or lower than that limit.

13                   **MEMBER TOLGYESI:** So every the drum is  
14 measured, that's it?

15                   **MR. ASTLES:** Chris Astles, for the record.  
16                   Yes, the drum disposal process, the  
17 bottleneck is the actual scanning of the drum to make sure  
18 it is decontaminated.

19                   **MEMBER TOLGYESI:** Merci.

20                   **THE CHAIRMAN:** Okay. Anybody else?

21                   **MR. LEEDER:** If I could just add one  
22 closing comment, or unless you have another comment?

23                   **THE CHAIRMAN:** No, no, go ahead.

24                   **MR. LEEDER:** The recommendations that we  
25 have put forth, to implement them they're relatively low

1 cost and easy to implement. And we feel that they would  
2 have a good impact on increasing environmental monitoring  
3 and limiting potential discharges that could be harmful to  
4 the environment from the facility.

5 The recommendations that we've made  
6 regarding the monitoring and reporting are also current  
7 with what other facilities in the mining, industrial,  
8 domestic, sewage treatment plant industries are doing, and  
9 we strongly recommend that CNSC includes our  
10 recommendations in their licence terms or at least in  
11 their review processes.

12 **THE CHAIRMAN:** Thank you. I got a couple  
13 of questions here.

14 First of all, can you tell us a little bit  
15 about your experience with the Denison -- the Denison and,  
16 you know, Rio Algom and all Elliot Lake. What -- Bay  
17 Street I hear was very negative. So what is the current  
18 kind of view; is it something that's continued to be very  
19 negative?

20 **MR. MEAWASIGE:** Nishin Meawasige for the  
21 record. The relationship with Elliot Lake at this point  
22 in time, we've got a variety of different activities going  
23 on between the two communities.

24 And I see it as we -- Serpent River First  
25 Nation approaches the relationship as a means to moving

1 beyond and learning from our past and trying to consider  
2 the current legal framework that surrounds aboriginal law  
3 and the impacts on First Nation treaty rights in terms of  
4 moving forward. Our lands and resources coordinating unit  
5 has been working with respect to Denison Environmental and  
6 Rio Algom.

7 We've done a number of -- for the past I  
8 believe two to three years we've had an opportunity to  
9 work with Dennison Environmental and doing lake management  
10 studies conducting sample work within some of the lakes  
11 that are involved and integrated into the tailings  
12 management area network that they have that moves through  
13 Serpent River, the Serpent River Watershed. And we  
14 continue to have a positive relationship with Denison  
15 Environmental.

16 The City of Elliot Lake, there is some --  
17 some controversial areas, files that we have, but we  
18 continue with a positive and productive, constructive  
19 approach, just as we do with Cameco Corporation here with  
20 respect to this hearing, we will continue to do so moving  
21 into the future. So we look at it from a very positive --  
22 positive nature moving forward.

23 **THE CHAIRMAN:** Okay.

24 **MR. MEAWASIGE:** Sorry. The answer to the  
25 other question is we're about -- I don't know if you asked

1 that, asked me how far we were from Elliot Lake or not,  
2 but we're about pretty much the same distance. Yeah.

3 **THE CHAIRMAN:** Right. Anybody else?

4 So thank you very much. Once again, thank  
5 you for a really, really useful and informative report.  
6 And hope for you guys to continue to put us to the test,  
7 so to speak.

8 **MR. MEAWASIGE:** Yes.

9 **THE CHAIRMAN:** Thank you.

10 **MR. MEAWASIGE:** Thank you.

11 **THE CHAIRMAN:** What we going to do now is  
12 we're going to break for lunch and reconvene at 1:15, and  
13 we'll continue. So thank you very much.

14

15 --- Upon recessing at 12:19 p.m./

16 L'audience est suspendue à 12h19

17 --- Upon resuming at 1:22 p.m./

18 L'audience est reprise à 13h22

19

20 **THE CHAIRMAN:** Okay. We're back. Sorry to  
21 be a bit late. So we'll move to the next submission by  
22 the International Institute of Concern for Public Health  
23 as outlined CMD H18.36 and 18.36A and B.

24 Ms. Tilman, the floor is yours.

25

1       **11-H18.36 / 11-H18.36A / 11-H18.36B**  
2       **Oral Presentation by the**  
3       **International Institute of**  
4       **Concern for Public Health (IICPH)**

5  
6               **MS. TILMAN:** Thank you very much and good  
7 afternoon. I hope you had a good lunch.

8               So let's move on. And again, like before,  
9 I'll do the best to keep to the time limit.

10              So I am here as the outline, which you have  
11 in front of you. And as an overview of our submission, I  
12 want to stress the overriding concerns that we have. We  
13 feel the changes are very significant. We're questioning  
14 the basis for the increase, and we're also concerned about  
15 the impact of that increase on the issues as listed there.

16              You know the background of the refinery and  
17 so this is here really for purposes of background and the  
18 concerns we have over the emissions in the refinery result  
19 from routine "accidental" releases.

20              There have been elevated uranium in soil  
21 levels in the past, and the risks that pose to the  
22 ecosystem. Particularly, you look at the location at the  
23 mouth of the Mississagi River and the -- on the shores of  
24 Lake Huron.

25              There's quite a history of operations pre-

1 the refinery in the plant that have polluted the area  
2 severely before the plant was even there. When it began  
3 in '83 it -- it runs 24/7 and is the largest commercial  
4 refinery in the world.

5 Now, I'm moving into the history of  
6 Cameco's request for increased production, because I think  
7 that is paramount to the discussions today. It's been  
8 going on for quite awhile.

9 The year in particular I'd want to draw  
10 attention to is the March 2009 where CNSC had requested  
11 additional supporting documentation and Cameco did delay  
12 its proposal for increasing production due to -- and this  
13 is a quote, really, unfavourable market conditions. And  
14 so the history continued.

15 Now, what we're questioning is Cameco's  
16 unfavourable market conditions. What was that really?  
17 Why are the markets any more favourable now two years  
18 later, and especially after Fukushima. A huge concern  
19 about projecting out to the future for a 10-year term.  
20 And we even question whether in light of Fukushima, in  
21 light of safety measures, in light of potential impacts on  
22 markets, should there be an EA, a full EA?

23 Specifically we're very concerned about the  
24 incinerator at the refinery. It has emitted -- it has a  
25 history of emitting the -- a fine particulate matter,

1 metals, nitrogen oxides, hydrochloric acid, dioxins and  
2 furans. As a matter of fact, one of the reasons it had to  
3 shut down and be upgraded is it couldn't meet the Canada-  
4 wide standards 2007 limits for dioxins and furans.

5 The shutdown did lead to a backlog of  
6 material. And I believe -- I've gone through the  
7 documents, the air pollution controls have been installed.  
8 Emissions have been reduced, I've noticed significantly  
9 reduced. There's still a concern about nitrogen oxides.  
10 And the licence -- a big change, in our view, is the  
11 amendment of the licence to allow the incinerator to  
12 operate 24/7.

13 To go over some of the concerns with  
14 incineration, it is pyrophoric uranium, rather, and it  
15 poses a danger to downwind communities. It's not soluble  
16 in body fluids. It forms tiny respirable particles that  
17 can penetrate through the various lung blood, blood brain  
18 barriers and be harmful to the embryo or fetus.

19 Also, emissions can travel various  
20 distances. It depends on the pollutant. It depends on  
21 the winds. It depends on a number of things. It can be  
22 deposited, may re-volatilize, and it's important to  
23 remember that metals cannot be destroyed by incineration.

24 We feel increasing production and operating  
25 time will only increase emissions from the incinerator and



1 measures, but just has a comment, these operations will  
2 generate waste. There's no way it cannot generate waste  
3 and I'm sure Cameco would acknowledge that.

4 And the free releasing is a means of  
5 dispersing radioactivity. It is not a means of reducing  
6 waste.

7 Workplace issues, this is a big concern for  
8 us. Yes, the levels ranged, if you looked at the  
9 presentations this morning and the ones done November 3<sup>rd</sup>,  
10 from 15.9 to 11.1 miliseverts and the maximum dose was  
11 58.2 miliseverts for 5 years. This was worker dose.  
12 Cameco has noted that it is more difficult to achieve  
13 these significant reductions. We feel these levels are  
14 very close to current limits and much closer than I've  
15 seen in other particular sectors.

16 And what would happen if more stringent  
17 limits would be developed? Would Cameco be able to then  
18 say that they're complying? Sorry.

19 And here is just a comment as a result --  
20 as noted by Cameco itself about the experience of  
21 Fukushima nuclear power plant. It has challenged the  
22 entire nuclear industry to assess they're safety case and  
23 CNSC is doing their lessons of Fukushima as well in terms  
24 of safety.

25 Cameco also acknowledges the need for

1 skilled workers. And if they have a challenge with their  
2 workforce, how will producing -- increasing production  
3 ensure safety 24/7?

4 Now, this one is a real bugaboo for me, for  
5 us. You've seen the charts, the graphs on uranium, air  
6 emissions, the current levels which are in kilograms per  
7 hour, and they propose -- which are a factor -- quite a  
8 factor lower, but the actual emissions are nowhere near  
9 those levels, the same with the liquid effluent releases.

10 Our comments are uranium emissions, I'm not  
11 how they're determined. The enormous disparity is not  
12 acceptable. These limits aren't precautionary and they're  
13 permits to pollute.

14 Turning to economics, this is taken from  
15 Cameco's own investment section. So they're all quotes.  
16 And would I'd like to draw -- you can read it as well as  
17 my reading it out to you, but you notice in the first  
18 bullet the demand for world uranium consumption is a  
19 questionable demand, and in bold, taken right from Cameco,  
20 an accident -- this was before Fukushima -- an accident  
21 anywhere would affect the prospects for nuclear generation  
22 and have an effect on their operating.

23 The market is not promising. Stock in  
24 Cameco has lost its value. Here we go, a little picture.  
25 Another little picture, the spot price.

1                   So why would investors want to take this  
2 risk at this particular time with expanding production?

3                   So going to our conclusions, the  
4 foreseeable market demand does not justify granting a  
5 licence for this increase and for a 10-year period. It  
6 would inevitably lead to an increase of generation of  
7 waste, exposure, et cetera.

8                   A 10-year term would bring this facility  
9 close to 40 years of operation. When a facility gets  
10 older, there are more problems that do develop. There are  
11 more spills, accidents likely, and we feel that with an  
12 increasing knowledge and awareness of health effects of  
13 radiation, more stringent safety limits for radiation  
14 exposure are likely to be adopted in the next period  
15 hopefully.

16                   Therefore, we feel in light of Fukushima  
17 the strong evidence that there's no need for this  
18 expansion, IICPH does not recommend that this licence be  
19 renewed for a 10-year term or that the production level be  
20 increased.

21                   So we are asking you to reject this  
22 application.

23                   Thank you very much.

24                   **THE CHAIRMAN:** Thank you.

25                   Let's open it up for questions. Who wants

1 to go first? Dr. Barriault.

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

3 On your last slide, Slide 18, second  
4 bullet, it begs the question, why would worker exposure be  
5 increased if they increase productivity? My understanding  
6 is that workers work shifts of 40 hours a week or 37.5  
7 hours. So if there's no increase in time exposure, then  
8 why would the worker exposure increase?

9 And I guess I would like to ask that to the  
10 intervenor.

11 **MS. TILMAN:** I'm sorry.

12 **MEMBER BARRIAULT:** No, that's fine. Go  
13 ahead.

14 **MS. TILMAN:** We're talking -- I'm talking  
15 about the increase in production.

16 **MEMBER BARRIAULT:** I realize that, but if  
17 the exposure at the plant is no more time per week than  
18 what it is now, why would worker exposure increase?

19 **MS. TILMAN:** Because if in fact -- I'm not  
20 sure if in fact the worker exposure could increase if the  
21 emissions increased in a concentrated time, in the time --  
22 it's not that they're working more hours. It's not that  
23 they're actually at the workplace more hours, but there  
24 could be -- with more production there would be more  
25 emissions.

1                   **MEMBER BARRIAULT:** And you feel that would  
2 translate to more exposure?

3                   **MS. TILMAN:** It could very well.

4                   **MEMBER BARRIAULT:** It could, but would it?  
5 I don't know.

6                   **MS. TILMAN:** Well, it's likely, would you  
7 not say?

8                   **MEMBER BARRIAULT:** Is it reasonable to  
9 expect?

10                   **MS. TILMAN:** You know, it's a reasonable --  
11 I mean, if you eat more, you gain more weight. If you're  
12 exposed more in that limited time, you could be -- your  
13 exposure is increasing. If you've got more production of  
14 the same kind of substance that releases radioactive  
15 material, you will be exposed to more.

16                   **MEMBER BARRIAULT:** Would Cameco care to  
17 respond to that?

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

19                   In the EA that was completed for the  
20 production increase, there was a comment in there about  
21 only a marginal increase of worker exposure.

22                   The reality is that they're still the same  
23 shift schedule, no additional hours, and it's just a  
24 routine task for them.

25                   **MEMBER BARRIAULT:** And do you expect more

1           contamination to the environment during that period of  
2           time?

3                   **MR. ASTLES:** For the record, Chris Astles.  
4                   Once again, from the EA, there is no  
5                   significant increase in emission.

6                   **MEMBER BARRIAULT:** Thank you.  
7                   Would CNSC care to comment on that?

8                   **MR. ELDER:** Peter Elder, for the record.  
9                   We're just checking if we can give you a  
10                  precise -- when we say "marginal", what marginal means,  
11                  but certainly not in line -- in fact, for the emissions,  
12                  we have -- Cameco is actually reducing their action  
13                  levels.

14                  So even with this, there are -- have been  
15                  new technology introduced so that their actual action  
16                  levels are coming down even though the production increase  
17                  could go up.

18                  **MEMBER BARRIAULT:** I'm sorry, did you want  
19                  to respond to that?

20                  **MS. TILMAN:** I'm concerned about the  
21                  direction of this, because the numbers I've got are what I  
22                  get from the documents of CNSC and of Cameco, and those  
23                  are the numbers I'm quoting right out of those documents,  
24                  nothing more.

25                  I don't see any indication that those

1 numbers, those exposure levels, would decrease.

2 There's nothing in the documents that  
3 suggest that, with current operations.

4 So I have to come to a simple mathematical  
5 assumption, increase production with nothing else going on  
6 to -- and there's challenges to reaching more safety  
7 levels -- this is what Cameco has said. So I don't see  
8 how that is going to be decreasing.

9 **THE CHAIRMAN:** Okay, CNSC, have you found  
10 the definition of the marginal?

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

13 Yes, I have the information for -- I'll  
14 give for four contaminants for nitrogen oxides. The  
15 existing conditions is 2.8 grams per second. Under  
16 increased production it would 3.5 grams per second. For  
17 uranium, current is 0.00058 grams per second. Under  
18 increased production it would be 0.00063 grams per second.  
19 And there's a couple of others. They're all very, very  
20 small.

21 **MEMBER BARRIAULT:** Thank you.

22 **THE CHAIRMAN:** And the decrease we're  
23 talking about is the decrease in action level, which is  
24 not administrative monitoring, as you know.

25 Okay, so I think we -- yes, I think you're

1 right, there's more production marginal increase all  
2 within the set regulatory limit, and within a reduced  
3 action level, if I had to summarize what I just heard.

4 Cameco?

5 **MR. THORNE:** Andy Thorne, for the record.

6 I would concur with that. The current  
7 operations -- the current levels of contaminants are well  
8 a fraction of any regulatory limit and they will remain a  
9 fraction of the regulatory limit.

10 And I concur with Peter Elder, we are  
11 committed to reducing our action levels and we will do so.

12 **MEMBER BARRIAULT:** Thank you.

13 I guess my next question is on the issue of  
14 furan and dioxins coming off your incinerator. Are you  
15 burning PCB's in your incinerators?

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

17 No, we're not burning PCB's.

18 **MEMBER BARRIAULT:** Where do the  
19 furans/dioxin come from, do you know?

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

21 Furans and dioxins are generated through  
22 combustion of just about any products such as wood, paper,  
23 et cetera.

24 And so with this new ---

25 **MEMBER BARRIAULT:** But -- go ahead.

1                   **MR. ASTLES:** --- PC circuit we've installed  
2                   it's reduced the dioxin/furan levels to basically  
3                   detection level.

4                   **MEMBER BARRIAULT:** Okay. So there will be  
5                   no increase in dioxins and furans and none of them are at  
6                   toxic levels, is what you're saying? Because they're  
7                   carcinogens, as you know.

8                   **MR. ASTLES:** Chris Astles, for the record.  
9                   There will be no increase in it. The  
10                  production increase doesn't directly relate to any  
11                  increases in the incinerator. The process that the  
12                  incinerator is handling is materials like garbage bags,  
13                  worker boots, clothing, et cetera.

14                  **MEMBER BARRIAULT:** Okay.

15                  **THE CHAIRMAN:** I think that's a good time  
16                  to hear from -- MOE, do you regulate incineration period?  
17                  You have to give a certificate, I assume, on that. So do  
18                  you monitor and is everything according to your regulatory  
19                  oversight responsibilities?

20                  **MR. DORSCHT:** Ron Dorscht, Ministry of the  
21                  Environment, for the record.

22                  Yes, incineration is something the Ministry  
23                  of the Environment approves through a certificate of  
24                  approval process, and there's a requirement to do emission  
25                  sampling. And I'd have to refer to - Joe, there, can let

1 me know the last time that they did some monitoring. But  
2 the company's monitoring is subject to witnessing by  
3 Ministry of the Environment officials.

4 **THE CHAIRMAN:** So you monitor this and you  
5 actually have data that prove that they are within  
6 regulatory limits?

7 **MR. DORSCHT:** Ron Dorscht, for the record.  
8 The company monitors it and we oversee  
9 their monitoring of it.

10 **THE CHAIRMAN:** Okay, you want to -- to whom  
11 do -- do you actually accumulate data and you report it  
12 both to CNSC and to MOE?

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

14 As Ron has indicated in our certificate of  
15 approval for the incinerator, we're required to do annual  
16 compliance testing using a qualified third party expert.  
17 So we do that every year. And they generate a report and  
18 that report is submitted to the Ministry, who review it  
19 for compliance purposes and a copy is also provided to  
20 CNSC staff.

21 **THE CHAIRMAN:** Mr. Barriault?

22 **MEMBER BARRIAULT:** That's all, Mr.  
23 Chairman. Thank you.

24 **THE CHAIRMAN:** Go ahead.

25 **MS. TILMAN:** I was on the Canada Wide

1 Standards Committee for dioxins and furans and several  
2 others and I'm very well aware of this situation. At that  
3 time the emissions were significant, and you know -- as  
4 you well know, dioxins and furans are carcinogens at  
5 extremely very small levels.

6 And it was also at that time Cameco did not  
7 meet provincial guidelines for incineration for dioxins  
8 and furans. So that's for the record.

9 As a result, they did have to do that  
10 shutdown and put in the controls. The levels are reduced.  
11 But you cannot get away when you are incinerating at the  
12 kind of temperatures incinerators work with, combustion  
13 will result. Any chlorine anywhere, any contaminant will  
14 result in the development of dioxins.

15 **MEMBER BARRIAULT:** Does CNSC wish to -- or  
16 Cameco wish to comment on that?

17 **MR. DeGRAW:** Joe DeGraw, for the record.

18 In our C of A there is a release limit, if  
19 you will, for dioxins and furans and it's 80 -- I believe  
20 it's 80 picograms per cubic metre.

21 And as Ms. Astles has indicted, our last  
22 test results were I believe just under 10 percent of that  
23 limit. So, they were quite low compared to the limit.

24 **MEMBER BARRIAULT:** Thank you.

25 Thank you, Mr. Chairman.

1                   **THE CHAIRMAN:** Okay, anybody else?  
2           Monsieur Harvey?

3                   **MEMBER HARVEY:** Anyway, concluding remarks;  
4           you -- the third point, a 10-year term would mean 40 years  
5           of operation, mechanical operating problems, spills. To  
6           what extent we have to care with the aging management? I  
7           know we care very much for the nuclear station, but for  
8           that type of facility do we have to care about that?

9                   **MR. ASTLES:** Chris Astles, for the record.  
10                   To maintain the facility we have a number  
11           of programs through maintenance, non-destructive testing,  
12           quality assurance. So we also spend capital money to  
13           maintain and upgrade equipment as required. So our  
14           commitment is to maintain that refinery in a safe state.

15                   **MR. JAFERI:** Jafir Jaferi, for the record.  
16                   Yes, the equipment is maintained safely and  
17           they have a preventive maintenance program in place which  
18           we review and audit it.

19                   When it comes to the aging, they always  
20           replace equipment before that age comes up.

21                   **THE CHAIRMAN:** So this is not like a  
22           nuclear power plant when we worry about shelf life and,  
23           you know, after 40 years you've got to do a refurbishment  
24           and all that stuff?

25                   **MR. JAFERI:** Jafir Jaferi, for the record.

1                   You're right. It's not like that, and  
2                   equipment is mostly stainless steel piping because they  
3                   handle nitric acid there. It has a longer life. However,  
4                   everything has the end and they have a preventive  
5                   maintenance program in place and when required they  
6                   replace the piping, or walls, or equipment which needs to  
7                   be replaced.

8                   **THE CHAIRMAN:** Go ahead.

9                   **MS. TILMAN:** I think it is wrong to licence  
10                  a facility of this nature for that length of period. Most  
11                  of your licences seem to be five years and you could at  
12                  times have an interim review.

13                  The things are changing. Your own safety  
14                  measures that you are encouraging are out there for  
15                  comment, are out there for all nuclear facilities, not  
16                  just nuclear plants.

17                  Things do happen. They already have  
18                  happened at Blind River. We've had the incinerator  
19                  breakdown. It's now operating 24/7. That's a different  
20                  scenario than was before 2007.

21                  So one cannot say with any certainty that  
22                  there won't be problems, and that's the thing with a block  
23                  of time for that long. If we're talking about five years  
24                  or a two-year review or something like that, and if CNSC  
25                  was doing more compliance inspections at a greater

1 frequency, that would also be an issue to address. I  
2 understand the one compliance report I found was '09 and  
3 it's now, you know, two years later. So there's issues  
4 that come.

5 You know, to go with 10 years I think is  
6 not right at this time for any of these facilities, for  
7 any facility, and you've got to encourage more -- you've  
8 got to get more compliance inspections going in, in any  
9 event. It's a recommendation.

10 **MEMBER HARVEY:** But there has been I think  
11 27 inspections during the last period. Maybe I'm wrong,  
12 but around that.

13 So you think it's not enough?

14 **THE CHAIRMAN:** Well wait a second. Let's  
15 get the numbers right. How many inspections were there  
16 done by CNSC?

17 **MR. ELDER:** There were -- Dr. Harvey -- Mr.  
18 Harvey was right, it's 27 in the five-year period.

19 **THE CHAIRMAN:** It's not one, it's 27.

20 And then I think -- I don't know if you  
21 were here when they announced that they're going to do an  
22 annual -- annual reports, which hopefully, again, will  
23 bring some more data on performance. So -- and any major  
24 incident CNSC is bound, and Cameco is bound, to publicly  
25 announce them. So there's all kinds of other

1 interventions, I guess.

2 Do you want to add to that?

3 **MR. ELDER:** Just one more point I'd have to  
4 add is about things like, you know, you mentioned there  
5 were some changes in things like radiation exposures  
6 limits or something. These are set in regulations, not in  
7 the licence, so they come into force as soon as the  
8 regulation comes in force.

9 So, you know, we still have the ability to  
10 amend the licence if we feel that there needs to be a new  
11 standard in place, you know? It's not like this licence  
12 is static for that 10 years, regardless of all events.  
13 What we're saying is the 10 year is saying if nothing  
14 changes we think the current licence is okay. But we have  
15 the ability to amend the licence by our own motion, or  
16 bring it to the Commission to be amended without  
17 application from Cameco.

18 **THE CHAIRMAN:** This is a discussion about  
19 what is in the public domain though.

20 **MR. ELDER:** I understand but ---

21 **THE CHAIRMAN:** I think that's what the real  
22 ---

23 **MR. ELDER:** --- that will be in the public  
24 as well, any changes, any -- there will be routine inquiry  
25 on what finding, or compliance inspections, any issues

1 that we identify in that. Cameco's mentioned and we will  
2 make sure they continue, they now will have to do this be  
3 licence condition, make sure that their annual compliance  
4 reporting is available to the public on their website.

5 So we think there is enough information  
6 being given to the public over this period of time.

7 **THE CHAIRMAN:** Monsieur Harvey?

8 **MEMBER HARVEY:** Page 6 you -- under B,  
9 ceramic uranium, what should we know about that? I mean  
10 you're starting, it's very dangerous and then these metal  
11 fumes also pose an immediate danger for the residents of  
12 downwind communities. So could the staff comment on that  
13 point?

14 **DR. THOMPSON:** Patsy Thompson, for the  
15 record.

16 The Intervenor gives the impression that  
17 CNSC staff does not consider the solubility of the uranium  
18 particles that are coming out of the stack or for workers.

19 In fact, what we do is we consider all  
20 forms of uranium from the very soluble ones to the not  
21 soluble ones and that information is actually used to  
22 calculate doses. And so we do consider the actual  
23 characteristics of the uranium in that plant, and we have  
24 that information because we require that Cameco do  
25 solubility tests on the various particles, dust, uranium

1 that is used, and that's been done for the Port Hope  
2 Conversion Plant, for the Blind River Plant as well as the  
3 mines. So that we have very good information on the  
4 solubility of the various forms of uranium that are being  
5 used in the plant and that information is being used for  
6 dose assessments.

7 **MS. TILMAN:** I'm not assuming you don't --  
8 this is a point of interest and a health perspective.  
9 It's a point of concern when you're burning uranium that  
10 this is one of the issues, that's what's being raised  
11 there. I'm not assuming you do or you don't use that in  
12 -- the different solubilities. I'm aware of the different  
13 solubilities of uranium. I'm not saying you -- CNSC --  
14 does or doesn't do what it does, it's just that it is a  
15 dangerous substance. That's what I'm trying to say there.

16 **THE CHAIRMAN:** Monsieur Harvey?

17 **MEMBER HARVEY:** Last one. Just to come  
18 back on the -- on page 11 on liquid effluent releases, in  
19 the top, the first sentence of the second paragraph:

20 "There is a very serious disconnect  
21 between the licence limits and the  
22 reported emissions."

23 Just a few words from the staff about the  
24 link between the emissions and the limits, just to come  
25 back on the explanation.

1                   **MR. ELDER:** Peter Elder, for the record.

2                   We talked about this a bit yesterday on the  
3 other facility. The limits, the current limits and  
4 licence are based on a calculation, the derived release  
5 limit equivalent to 1 millisieverts dose. What we've done  
6 is take that and based it -- we converted it to a much  
7 lower dose of a conversion to a 50 microsieverts dose.

8                   So there is what we consider to be a health  
9 impact based on limits. Then, like everywhere else, we  
10 require them to have action levels in place to make sure  
11 that the technology performs as it's supposed to perform  
12 and which is why you see the actual performance much  
13 lower. This is what we expect to see in all of the  
14 facilities.

15                   I disagree that a limit is a licence to  
16 pollute. The limit is to make sure that there is no harm  
17 from the operation, and like we heard from the Serpent  
18 River meeting, this is the minimum requirement, we expect  
19 you to get better than that and we actually force you to  
20 better it by using the action levels and make sure that  
21 you maintain in your commitment -- the equipment works  
22 like it's designed to work.

23                   **THE CHAIRMAN:** Can I jump on this one?

24                   Can you turn to Slide 14? I think the  
25 Intervenor has a case here, and I don't know what the

1 answer is but I think this is something you should  
2 consider. If you look at the current limit, 35 kilograms  
3 a year would scare anybody as a limit. Eighteen hundred  
4 (1,800) kilograms per year as a proposed limit would have  
5 been okay if it was a stretch limit, stretch assignment.

6 If we apply ALARA, if the operator can  
7 actually do .00014 kilograms, why are we -- why is the  
8 Commission not pushing them further for this particular  
9 plant, for this particular performance, using ALARA. I'm  
10 missing something here.

11 **MR. ELDER:** I'd say ALARA is used below the  
12 limit, not to set the limit.

13 **THE CHAIRMAN:** Okay. But isn't it  
14 something that we should call it something else? I mean I  
15 don't know what the -- okay, you say proposed limit. Why  
16 did you propose that limit of .21 kilograms?

17 **MR. ELDER:** Again, I just -- it's based on  
18 a 50 microsievert dose.

19 **THE CHAIRMAN:** Right. So if they can do  
20 better, a lot better than that ---

21 **MR. ELDER:** It's like saying a Prius can do  
22 a lot better emission so it should have stricter standards  
23 than any other car. We're saying a standard is based on  
24 what is protective and then -- I mean, this is a point  
25 that we will be open to discussion and we realize we'll

1           come up with some -- we are looking at the discussion  
2           around how we set these limits. There are various models  
3           around there, but ---

4                   **THE CHAIRMAN:** But a car is a good example.  
5           The moment they -- the moment it was proven that cars can  
6           do below, the emissions start going below ---

7                   **MR. ELDER:** Yeah, but you're saying ---

8                   **THE CHAIRMAN:** --- and below.

9                   **MR. ELDER:** --- you're taking one  
10          particular car and because it can do better than the car  
11          beside it, it should have a lower limit.

12                  **THE CHAIRMAN:** Maybe.

13                  **MR. ELDER:** Maybe. So it's a debate we  
14          need to have.

15                  **THE CHAIRMAN:** I think I just generated an  
16          interest from Dr. Thompson.

17                  **MR. ELDER:** But what we've done for  
18          consistency across this is for these type of facilities  
19          we'll set it at 50 and then we'll have a discussion  
20          whether it can go lower, recognizing that the actual  
21          performance already is much lower.

22                  **THE CHAIRMAN:** I'm just recalling that you  
23          were saying you keep coming with a statement that if  
24          technology allows it, we'll lower it.

25                  **MR. ELDER:** And that's where we use it in

1 the action levels, in the actual performance.

2 **THE CHAIRMAN:** So maybe there should be  
3 something -- another limit called action limit?

4 **MR. ELDER:** That's a possibility.

5 **DR. THOMPSON:** Could I perhaps ---

6 **THE CHAIRMAN:** Jump right here and clear it  
7 up, jump in?.

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

10 As you know we've done a lot of work in the  
11 past two years looking at the procedures that the CNSC  
12 intends on putting forward for setting effluent limits.  
13 We have done benchmarking against what's done  
14 internationally and by various jurisdictions in Canada.

15 We are finalizing a discussion paper that  
16 will be put on the CNSC website to invite stakeholder  
17 comments. So what I would suggest is that the intervenors  
18 who have an interest on this subject to provide feedback  
19 to the CNSC and this feedback will be used to finalize our  
20 approach. We expect the document to be available early in  
21 February.

22 **THE CHAIRMAN:** Thank you.

23 Monsieur Harvey?

24 **MEMBER HARVEY:** C'est bon.

25 **THE CHAIRMAN:** C'est fini? Merci.

1                   **MEMBER HARVEY:**  Merci.

2                   **THE CHAIRMAN:**  Anybody else?

3                   Dr. McDill?

4                   **MEMBER MCDILL:**  I wonder if I could ask  
5                   staff to summarize some of the licence terms that have  
6                   been granted in the last number of years in terms of  
7                   duration?  I realize not all of them are this kind of  
8                   facility, but I think it helps to know what else is  
9                   licensed for 10 years or five years.

10                  **MR. ELDER:**  I'm going to stretch my memory  
11                  on some of this.

12                  **MEMBER MCDILL:**  There's probably someone in  
13                  Ottawa.

14                  **MR. ELDER:**  Some of the waste -- yes, we  
15                  can get one if you want.  But the General Electric,  
16                  Hitachi fuel fabrication plants in Toronto and Port Hope  
17                  have a 10-year licence.  The waste storage facilities,  
18                  some of the waste storage facilities have longer licences.  
19                  Nordion, which is a medical isotope producer, has 10-year  
20                  licence and has had -- they are about halfway through that  
21                  one.

22                  Research reactors.  The small research  
23                  reactors have 10-year licences.  So the recommendations of  
24                  the 10-year -- five or 10 years, the criteria we're using  
25                  have been in place since 2002 and there are a number of

1 criteria.

2 **MEMBER McDILL:** Hitatchi in Peterborough is  
3 10 years.

4 **MR. ELDER:** Hitatchi in Peterborough, yes,  
5 is 10 years.

6 **MEMBER McDILL:** And McMaster which is a ---

7 **MR. ELDER:** McMaster is actually seven  
8 years.

9 **MEMBER McDILL:** Seven years. Okay.

10 **MR. ELDER:** One of the mine licences for  
11 McClean Lake is an eight-year licence. All the rest are  
12 five.

13 We currently have nothing that's less than  
14 a five-year licence.

15 **MEMBER McDILL:** Thank you.

16 And my second question was with respect to  
17 the -- I had it marked -- Key Lake and Utah. Maybe I need  
18 to -- the intervenor's question on Key Lake and Utah.

19 Thank you very much for that answer.

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

21 I believe the question is what to we ship  
22 to Utah currently?

23 **MEMBER McDILL:** I think the intervenor  
24 identified a potential discrepancy between the two  
25 reports. I didn't pick it up myself, but -- "sent for

1 recovery of uranium content to Utah and/or Key Lake in  
2 Saskatchewan." There was a concern there.

3 **MS. TILLMAN:** One of the documents, and  
4 I've listed it in the written submission which document,  
5 in Cameco's document it indicates that a recent  
6 determination was made by the CNSC -- sorry -- that they  
7 could start shipping to Key Lake in 2012, whereas the CNSC  
8 staff submission, which I've identified, indicates that  
9 they're already shipping to Key Lake and that they're  
10 shipping to Utah and Key Lake. The words -- the quotes  
11 that are in our written submission, page 9 at the top, are  
12 taken directly from those two submissions.

13 And so I found it confusing to know, is the  
14 stuff going to Key Lake already or is it not? And I've  
15 actually had to contact staff prior to coming here to see  
16 if they could clarify that for me.

17 But I think because these are public  
18 documents that have gone out and they contradict each  
19 other, it would be good if we could get that clarified?

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

21 To clarify that, we have not started  
22 shipping our calcine product yet to Key Lake. It is still  
23 continuing to go to Utah, but the plan is sometime this  
24 year to begin those shipments.

25 **MEMBER McDILL:** What's your position,

1 staff, on this?

2 **MR. JAFERI:** Jafir Jaferi, for the record.

3 Yes, that's a correct statement.

4 We have been reviewing their confirmation  
5 that the Key Lake, Saskatchewan -- in Saskatchewan, Key  
6 Lake has received approval from the provincial government  
7 to allow them to ship this material back to mines to  
8 recover uranium.

9 So that was our verification so that it  
10 doesn't contradict any provincial regulations.

11 **MS. TLMAN:** I'm afraid it does.

12 Like, I'm just asking you to either correct  
13 your CMD 11-H18, page 47. Okay? And you will see the  
14 statement there is confusing, that it indicates that it's  
15 already happening. If it's not happening, then just  
16 correct it.

17 **MR. ELDER:** We will correct it.

18 **THE CHAIRMAN:** Thank you.

19 Dr. McDill?

20 **MEMBER McDILL:** Thank you. That's all.

21 **THE CHAIRMAN:** Mr. Tolgyesi? Anybody?

22 I think that there was -- I'm trying to  
23 remember what -- okay, Slide 12. Can somebody -- let me  
24 start with staff.

25 The worker exposure to radiation maximum

1 cumulative dose over five years, 58.2 millisieverts,  
2 what's the story there? Is that true?

3 **MR. ELDER:** In terms of is it the right  
4 number? Yes, that is the right number. We had it in our  
5 presentation this morning, yes.

6 **THE CHAIRMAN:** So that's still within --  
7 I thought they ---

8 **MR. ELDER:** Against a five-year number of  
9 100, yes.

10 **THE CHAIRMAN:** Okay. The intervenor feels  
11 that this has been ---

12 **MS. TILLMAN:** Those are yearly. That was a  
13 yearly level; 15.9 or 11.1 are yearly levels and the  
14 worker exposure, as you know, according to the current  
15 limits, are 50.

16 But the cumulative one, the five-year,  
17 58.2 was recorded. That's over five years, and the limit  
18 is 100.

19 The concern that's being expressed there,  
20 that's close to 60 percent of what is allowed. That's --  
21 if you look at exposure levels of radiation workers, that  
22 is worrisome. What are the long-term effects -- I mean,  
23 how much longer -- is it -- be it one worker, be it 10  
24 workers that have had that kind of level? When you look  
25 at long term, not just the five years, that's a five-year

1 effect. What is going on after 20 years if that is the  
2 kind of exposure that one is used to?

3 I mean, when you reach close to that so-  
4 called level, there should be alarm bells going on, not  
5 just -- we are talking about human health conditions.

6 And we know that even if we may disagree  
7 between CNSC and us as to whether that level is  
8 precautionary, what is currently there, still, it rings  
9 alarm bells.

10 What is happening to those workers that may  
11 be receiving those doses?

12 **DR. ALBRIGHT:** Is it not close enough to  
13 the limit to trigger an action? Because you have action  
14 ---

15 **DR. THOMPSON:** Patsy Thompson ---

16 **DR. ALBRIGHT:** --- you have action levels  
17 that are well below the limit.

18 **THE CHAIRMAN:** Well, if there is one ---

19 **DR. ALBRIGHT:** Is that not enough to do  
20 that?

21 **THE CHAIRMAN:** But if I understand  
22 correctly, there is one internationally accepted number  
23 for uranium nuclear workers. It's the 50 and 100. Is  
24 that not correct? I mean, that's long been established.  
25 So I'm trying to understand the concern here.

1                   **DR. THOMPSON:** Patsy Thompson, for the  
2                   record.

3                   The Radiation Protection Regulations are  
4                   based, as you've said, on international recommendations.  
5                   We have in our regulations a 50 millisievert annual dose  
6                   limit with 100 millisievert limit over a five-year period.

7                   The number of individuals that have the 58  
8                   or in that range of dose over a five-year period, there  
9                   are only a few individuals. The action levels and  
10                  administrative levels are applied on the day-to-day  
11                  activities to controlled exposures and the fact that there  
12                  are actually very few workers that have these levels of  
13                  exposures indicate that the R.P. programs are functioning.

14                  Yesterday, I talked about the  
15                  epidemiological study that CNSC staff did on nuclear  
16                  workers. So the study included 42,200 nuclear energy  
17                  workers who started working in 1965. So that's a 40-year,  
18                  approximately, work history and that study showed that  
19                  with the exposures that are in the range that we are  
20                  talking about here, have not had any health effects on  
21                  those workers.

22                  **THE CHAIRMAN:** In the data that you  
23                  collect, normally -- sometimes some licensees also provide  
24                  the average and the maximum. Do you have this number?

25                  **MR. DeGRAW:** Joe DeGraw, for the record.

1           The 15.9 and 11.1 millisieverts value as  
2           quoted in the slide are actually the maximum dose to an  
3           individual in that year. Average employee exposure across  
4           the refineries on the order of 3 millisieverts a year. So  
5           that 15 and 11 are the maximum individual exposed in the  
6           calendar year.

7           And the numbers from 2007 to 2010 have  
8           actually decreased in terms of the maximum. They went  
9           from 15.9, I believe, to 12.9 in '08, 12.3 and then 11.1  
10          in 2010.

11          And in terms of the five-year cumulative,  
12          Cameco is certainly well aware of that and we do watch  
13          that and monitor that, and I can tell you that this  
14          individual who received the 58.2 millisieverts over the  
15          five-year period, we have been working with him and we  
16          have succeeded in reducing his annual dose by 2  
17          millisieverts from what it was in 2008 to what it was in  
18          2010. So we are certainly aware of this and we try our  
19          best to keep exposures as low as reasonably achievable.

20                   **THE CHAIRMAN:** Thank you.

21           My last question; can you do a quick reply  
22           to unfavorable market conditions? The allegation here is  
23           that Fukushima had an impact, a downsize impact. So it  
24           seems like what's the rush to increase production?

25                   **MR. THORNE:** Andy Thorne, for the record.

1 I did make reference to this actually in  
2 Day 1. Cameco -- yeah, the -- we're very -- we feel the  
3 market for uranium in the world over the next 10 or 20  
4 years is strong. We're very bullish on nuclear and the  
5 role nuclear plays in generating clean energy for the  
6 world.

7 Twenty (20) percent of the world's  
8 population are currently without electricity in relation  
9 to -- or reliable electricity. So some of the developing  
10 countries like India, China are looking to engage in  
11 nuclear programs and expand their nuclear programs. So  
12 our outlook for nuclear is -- nuclear growth is strong.  
13 In relation to how that affects the -- our request for an  
14 increase in licence I will -- or production I would ask  
15 Chris Astles to comment on that.

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

17 Currently about a third of our production  
18 is being transported or sent to the U.K. to Springfields  
19 Fuels for total conversion to UF<sub>6</sub>. This is an opportunity  
20 that did come up in the -- just prior to the current  
21 licensing period.

22 And we're constantly looking for other  
23 potential markets for our UO<sub>3</sub> to help improve efficiencies  
24 in throughput at the site. It's a safe operation with  
25 good cost efficiencies so therefore a very favourable

1 product for other possible converters.

2 So we want to be in a position where if a  
3 contract can come up we can respond to it fairly quickly  
4 and provide the material.

5 **THE CHAIRMAN:** Thank you.

6 Ms. Tilman, last word.

7 **MS. TILMAN:** Yes. Have you actually been  
8 producing at your maximum level currently at 18,000?

9 **MR. THORNE:** Andy Thorne, for the record.  
10 No, historically we've not produced at that  
11 level.

12 **MS. TILMAN:** What is your typical level at  
13 which you've been producing over the last five years?

14 **MR. ASTLES:** Chris Astles, for the record.  
15 Anywheres from 12 to I believe 17.4 was our  
16 max in 2006 or 7 -- 2006.

17 **MS. TILMAN:** Currently?

18 **MR. ASTLES:** Chris Astles, for the record.  
19 Our current production this year, we're  
20 targeting around the 13,000 for now.

21 **THE CHAIRMAN:** Okay. Anyhow that's not  
22 really an issue here for discussion. So thank you for  
23 your intervention.

24 So the next submission is by Northwatch as  
25 outlined in CMD H18.37 and H18.37A and B. Ms. Lloyd the

1 floor is yours?

2

3 **11-H18.37 / 11-H18.37A / 11-H18.37B**

4 **Oral Presentation by**

5 **Northwatch**

6

7 **MS. LLOYD:** Thank you and good afternoon.

8 My name is Brennain Lloyd and I'm  
9 presenting on behalf of Northwatch. We'll be highlighting  
10 and speaking to our submissions of December 2011 and our  
11 supplementary filing of earlier this month; those are CMDs  
12 11-H18.37 and 11-H18.37A and 37B.

13 As I said, in December 2011 we filed our  
14 general submission and an expert report by Paul Robinson  
15 of Southwest Research Information Centre, evaluating  
16 environmental performance and expert report by Laura  
17 Bowman of Iler Campbell providing a jurisdictional review.

18 Our supplementary file earlier this month  
19 was a report from the Elliot Lake field station which is a  
20 laboratory now operating out of Laurentian University.  
21 And it provides results of a small soil sampling program  
22 in the vicinity of the Blind River refinery which we  
23 conducted earlier this month.

24 Northwatch is our regional environmental  
25 coalition. We were founded in 1988 to provide a regional

1 representative voice and to promote public participation  
2 in environmental decision making and to address regional  
3 concerns with respect to energy, waste, mining, forestry.

4 And we have a long-term and consistent  
5 interest in the nuclear chain and it's serial effects in  
6 our region including waste issues related to the uranium  
7 refinery, uranium mining, the tailings management over the  
8 long term, and other issues relating to nuclear power  
9 production and long-term waste management requirements and  
10 the potential of those to affect the lands and the water  
11 and the people of our region in Northeastern Ontario.

12 Our concerns with respect to the refinery  
13 primarily relate to environmental performance and  
14 potential related adverse affects on workers, the  
15 residents, the natural environment in the vicinity of the  
16 refinery including the north shore, the north channel of  
17 Lake Huron, and the islands in the north channel and Lake  
18 Huron including Manitoulin Island.

19 We have appeared before the Commission on  
20 other matters primarily related to nuclear facilities in  
21 Northeastern Ontario and we have previously intervened in  
22 licensing exercises for the Blind River facility, most  
23 recently in 2006.

24 And our comments and concerns on past  
25 licence applications can be summarized in the following

1 four points: They related to the environmental  
2 performance of Cameco; the representation provided by  
3 Cameco of that environmental performance; public  
4 engagement and information sharing; and the length of the  
5 licence period. And we will acknowledge that none of  
6 those concerns have really retired as we move into the  
7 current licence review.

8 The current licence review is for a --  
9 includes an extension of the licence, a shift from five  
10 years to 10 years in the licence period, an increase by  
11 6,000 tons from 18,000 tons per annum to 24,000.

12 And this expanded production and increased  
13 licence period are matters of concern. As Cameco  
14 acknowledges in their midterm performance report there is  
15 a correlation between production levels and emission  
16 levels.

17 And so I think the concern -- given that we  
18 have a concern about the environmental releases, the  
19 impact on the environment with current levels of operation  
20 it's only reasonable that that concern would only increase  
21 with the increase in production, given that correlation.

22 So we have continued concerns about  
23 environmental performance but also with respect to waste  
24 management and consultation, public engagement, and  
25 engagement with Aboriginal communities in the region.

1                   With respect to environmental performance,  
2                   given that that was a key area of concern for us in the  
3                   2006 licence review we identified that early on in our  
4                   review for this licensing period. And we were able, with  
5                   the most appreciated support for the participant funding  
6                   program, we were able to obtain some expert assistance  
7                   from the Southwest Research Information Centre in support  
8                   of our review, and we have provided a full report as  
9                   Appendix A to our December submission.

10                   And I'll summarize very briefly a few of  
11                   the key points, and I do trust that you have read that  
12                   document in detail. Some of the key points are related  
13                   directly to Cameco's performance and their information  
14                   provision.

15                   Cameco fails to provide its monitoring data  
16                   in sufficient detail to really allow an evaluation of the  
17                   scope of impact of its operations. This compilation and  
18                   analysis of the monitoring data rather than -- what we see  
19                   repeatedly, and we see this in Cameco documents and CNSC  
20                   documents, is this averaging out where we see the  
21                   information presented as consolidated numbers. And in the  
22                   absence of having the detailed information provided, it's  
23                   really difficult for us to do an evaluation but we think  
24                   it's also difficult for the Commission members to do that  
25                   evaluation.

1                    Cameco fails to provide data on the full  
2 range of chemicals in its air or water emissions. It  
3 presents information only on those contaminants which are  
4 in its licence limits. And that's a shortcut that really  
5 prevents communication of the full chemistry of their  
6 emissions. They also fail to identify the isotopic form  
7 of uranium or other radionuclides in its air and water  
8 emissions.

9                    Their data shows increases in annual  
10 internal dose as measured by urinalysis and by lung  
11 counting, but neither CNSC nor Cameco appear to recognize  
12 those trends in the data or comment on it or address  
13 measures to reduce those exposures.

14                    And Cameco's air emission data for 2011  
15 appears to exceed the emission rates projected for the  
16 expanded facility in 2008, and neither CNSC nor Cameco  
17 appear to recognize that contradiction or address those  
18 concerns. And as I've said more details are available in  
19 the SRIC report.

20                    A key area of our concentration as we look  
21 at environmental performance, we've looked at the  
22 accumulation of uranium concentrations in the soil.

23                    We did provide the Ministry of the  
24 Environment's 2009 FIDO toxicological report as a  
25 reference document to our supplementary filing and it

1 summarizes the Ministry of the Environment's sampling  
2 program in the vicinity of the Blind River uranium  
3 refinery and we provided it to you both because we've  
4 identified an absence of other information which we felt  
5 you need and also to provide context for the sampling  
6 information that we would ourselves be bringing forward.

7 But I did want to note a contrast in the  
8 way information is presented and that is, in the MOE's  
9 2009 report under Figure 4 which is what's on the screen  
10 now, the Ministry of the Environment indicates, despite  
11 the fact that Sites 2 and 4 are within forested areas and  
12 exhibit variable year-to-year concentrations, there are  
13 strong indications that uranium concentrations have  
14 increased during the operating period of the Cameco  
15 facility. The same report is summarized in Cameco's  
16 midterm performance report with one line and Cameco  
17 states:

18 "MOE's report reaffirm the conclusions from  
19 previous MOE reports that while airborne  
20 emissions from Cameco do occur, they can  
21 only be detected in the immediate proximity  
22 of the facility."

23 Cameco's summary is not factually  
24 incorrect, but neither is it informative or representative  
25 of the MOE report findings and that is a matter of concern

1 to us and I think it would be to you as well.

2 CNSC staff report for the CMD on the  
3 midterm performance report is similar limited in terms of  
4 the sampling results which are presented; it does  
5 acknowledge the 2007 sampling program but it discusses it  
6 only for the purpose of follow-up from discussions in the  
7 2006 relicensing hearing.

8 I'm sorry, I can't actually recall how many  
9 of you were there in 2006, Dr. McDill, but there was a  
10 discussion there around discrepancies between the MOE and  
11 the Cameco sampling results, that's the only reference to  
12 the 2009 report in the midterm performance report CMD from  
13 staff.

14 On the, in the CNSC Day 1 CMD, soil sample  
15 results from 2006 to 2010 are provided in Table 13 but  
16 it's a two-line summary and that is, it provides in the  
17 CMD staff -- in the CNSC CMD they provide a summary that  
18 shows minimum and maximum concentrations. It's difficult  
19 to impossible for the public to assess the effect of the  
20 operation when the information is presented in such a  
21 minimal way.

22 The environmental performance report in the  
23 Cameco midterm performance report, in contrast they  
24 present their own soil sampling results and they also use  
25 a one-line average -- a two-line representation, but they

1        have one line for average and one line for maximum, so we  
2        can't even compare the two two-line summaries of sampling  
3        results and when you look at the figure from the MOE  
4        report, Figure 3 which is on the screen now, what it shows  
5        is a great deal of variability among the sample plot. Two  
6        (2) and 4 are the two that you saw on the previous screen  
7        which have the highest level of concentration and are also  
8        showing the most dramatic increased and that trend  
9        continues into our own sampling results. And I just  
10       presented that Figure 3 to show to you that variability  
11       and to really suggest to you that summarizing that in a  
12       two-line table does not do justice, and summarizing it in  
13       two-line tables that presents different lines is really  
14       frustrating.

15                        So as presented there is that high level of  
16       variability and that is a matter of concern. We have an  
17       interest in how these conditions continue to change, for  
18       better or worse, in the local environment and we expect  
19       that you share those concerns. And we continue to hold  
20       the view that both the public and Commission members are  
21       unduly handicapped in our understanding the changes by  
22       this limited sampling information.

23                        Paul Robinson, our expert who did the  
24       environmental performance review, has identified a number  
25       of gaps in the information available but it appears to be

1 a two-fold problem because not only is not enough data  
2 being collected or presented but the data which is  
3 collected is either not made available or is summarized in  
4 such a way as to make it unhelpful or uninformative.

5 In support of our participation in the 2012  
6 licensing review, we did retain the Elliot Lake field  
7 research station personnel to conduct a small sampling  
8 program. And because of winter conditions, limited  
9 resources and so on, they did a subset of the MOE sample  
10 plots. But what those results showed was that those  
11 trends continued, particularly for Sites 2 and 4. So we  
12 saw the increase in 150 percent or 100 percent  
13 respectively for Sites 2 and 4 between 2007 and the  
14 January 2012, so September 2007 to January 2012. There  
15 are also two other sites that shows a slight less increase  
16 and two sites that showed a slight decrease, and all of  
17 those details are provided to you in our January filing.

18 The results have been shared with Cameco  
19 and with the Ontario Ministry of the Environment and  
20 there's been brief discussions between Elliot Lake field  
21 station and Cameco and between ourselves and the field  
22 station staff and I think it's fair representation to say  
23 that we share the view that more sampling is required, and  
24 more extensive and a more consistently delivered sampling  
25 program is required.

1                   And in addition, the sampling results that  
2                   are collected by Cameco should be made available to both  
3                   the Commission Members and the public, and as real data  
4                   rather than aggregates and averages and single number  
5                   summaries.

6                   I'll speak briefly just to a few more  
7                   topics, one is waste management.

8                   The discussion of waste, waste volumes'  
9                   characteristics in both the CNSC and the Cameco Commission  
10                  member documents are really over-generalized and they fail  
11                  to provide adequate information about the waste management  
12                  approach and its programs and its outcomes. As you know,  
13                  there are already approvals in place to transfer waste  
14                  from Port Hope Conversion Facility in Southern Ontario to  
15                  the Blind River facility in Northern Ontario and in  
16                  addition it's our understanding that there is also an  
17                  approval for the uranium-contaminated process oils to be  
18                  added.

19                  Now, Chris stated this morning quite  
20                  categorically, I thought, in response to Serpent River  
21                  First Nation that they do not burn oil but certainly  
22                  Section 22 of the screening report in 2006 stated quite  
23                  clearly the intention to add those process oils to the  
24                  waste stream.

25                  We did comment on the certificate of

1 approval in 2007 for this, no decision has been posted, so  
2 perhaps it's an intention and not an actuality. So one of  
3 the frustrations with the process is we're left with a  
4 understanding that the 2006 screening document is now --  
5 as approved by CNSC, is now in play. We don't know the  
6 status of the certificate of approval amendment, it's been  
7 out there for five years. Chris says they don't burn oil,  
8 2006 they had an intention and got an approval to burn  
9 oil, so clarification would be helpful.

10 All of these concerns are significant, the  
11 concerns raised by Serpent River First Nation about  
12 potentially contaminated scrap metal going to the  
13 recyclers in Sault St. Marie, concerns raised  
14 International Institute of Concern for Public Health about  
15 waste moving to Saskatchewan. These are all concerns that  
16 are very significant.

17 From our perspective they may begin to pale  
18 in comparison to the concern we feel about proposals  
19 revealed over the last two days to put the north shore of  
20 Lake Huron on the receiving end of all the decommissioning  
21 waste from the Port Hope facilities with absolutely no  
22 public notice, no public consultation. I appreciate it's  
23 a preliminary decommissioning plan but we take exception  
24 to that plan being brought forward and to potentially  
25 having received approval from CNSC at a staff level with

1 no public notice on that.

2 We also learned in these two days that  
3 there's a conversation between Cameco Blind River and  
4 Cameco Port Hope to bring stockpiled combustible waste  
5 also to the north shore of Lake Huron, also for  
6 incineration so ultimately for release into the natural  
7 environment of the north shore.

8 **THE CHAIRMAN:** Can you proceed, please ---

9 **MS. LLOYD:** I will.

10 **THE CHAIRMAN:** --- so we can get some time  
11 for discussion.

12 **MS. LLOYD:** Yes, certainly.

13 Last two items required extension of  
14 licence length. As has been noted, there is a number of  
15 uncertainties around the licence, what the activities will  
16 be over the next few years let alone 10 years.

17 As we review the CNSC criteria for  
18 evaluating licence lengths, it requires that there be a  
19 stable operation with a predicted set of activities. I  
20 don't think that's the case in Blind River. I think that  
21 there are a number of uncertainties. The licence  
22 activities are not well characterized. The production  
23 level is uncertain. The 24-hour mode of operation is new.  
24 The above noted incomplete nature of groundwater  
25 monitoring program, the flood assessment. There are a

1 number of uncertainties. None of those speak to a stable  
2 predictable set of operations.

3 A five-year licensing period is not unduly  
4 onerous. We used to have a one-year licensing period. We  
5 were not convinced that we should be moving to a five-year  
6 and now to move to a 10-year is simply not acceptable.

7 Increased production, to speak very briefly  
8 to it, we have the numbers, we've given you the numbers in  
9 our written submission for Cameco's production numbers  
10 over the last five years. They're all well below the  
11 18,000 tonnes that they're currently permitted for -- the  
12 16,000 tonnes they're currently permitted for. We don't  
13 think market conditions are looking that great for them.

14 And there is that direct co-relationship  
15 between production and emissions and there is, I don't  
16 think, a justification for moving to increased production  
17 at this time.

18 **THE CHAIRMAN:** Okay, we get it. Thank you.

19 **MS. LLOYD:** So, in conclusion, we would  
20 request that the Commission limit the potential for harm  
21 by requiring a more vigorous approach -- a rigorous  
22 approach in waste management and avoidance, investigating  
23 more thoroughly human health and environmental impacts,  
24 refusing the request to increase production to 24,000  
25 tonnes per year, reducing the licence term to not more

1 than two years.

2 And that's all necessary to have a better  
3 -- a more appropriate sampling program in place, a better  
4 understanding of the waste management, the flood risk  
5 assessment ---

6 **THE CHAIRMAN:** Okay.

7 **MS. LLOYD:** We do not want the -- one more  
8 sentence.

9 **THE CHAIRMAN:** No, please, it's 20 minutes,  
10 okay. I've been more than generous. Thank you very much.

11 I'd like to start the question period. Who  
12 wants to go first? Nobody wants to go first?

13 Go ahead, Mr. Tolgyesi.

14 **MEMBER TOLGYESI:** On page 3 of your written  
15 presentations, H18.37, the intervenor is saying that  
16 reporting failures resulting in some shortfall,  
17 specifically to determine cumulative volume and content of  
18 release contaminants. That's at bullet number 3. The  
19 last one is groundwater monitoring where you're talking  
20 about using only average data for groundwater so you  
21 cannot see the variation. Could you comment?

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

23 With regards to the statement about the  
24 continuous sampling and reporting methods, for specific --  
25 for instance, the effluent discharge, we do use a

1 continuous composite sampler as the water's being  
2 discharged to the lake. So it's taking proportional cuts  
3 as the water is being discharged. So it is a  
4 representative sample of the overall discharge.

5 For the stacks we do use TSI analyzers that  
6 take continuous sampling from the stacks and then we do a  
7 composite of that for the 24-hour window as we change it  
8 on a daily basis.

9 **MEMBER TOLGYESI:** Same thing for  
10 groundwater monitoring holes, the pumping?

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

12 In terms of the reporting, we actually  
13 heard similar comments from the previous intervenor, and  
14 we'd already indicated that we would look at how we can  
15 make our reports better or more clearly understood.

16 **THE CHAIRMAN:** Can I jump into this one?  
17 You do -- is the raw data available? I mean, is anything  
18 secretive or commercially sensitive about some of your raw  
19 data?

20 Why not -- sometimes it's a lot easier to  
21 release -- this is a Statistic Canada kind of a ---

22 **MR. DeGRAW:** Joe DeGraw, for -- sorry.

23 **THE CHAIRMAN:** This is a little secret.  
24 Give somebody the raw data, let him play with it.

25 **MR. DeGRAW:** Joe DeGraw, for the record.

1                   Again that's something we can look at. In  
2 a given year we generate literally thousands of pieces of  
3 data. So I think what we really need to look at is now we  
4 can disseminate that data, because if you go too far the  
5 other way then, you know, the data -- we have to put it in  
6 a way that's still understood.

7                   But I understand what the Commission is  
8 saying and we will look at that.

9                   **THE CHAIRMAN:** And CNSC, again, same thing;  
10 any data that we have or collect or what have you, why  
11 don't we make them all available?

12                  **MR. ELDER:** We will look at this. And one  
13 of the things under public disclosure -- I would like  
14 Cameco to confirm -- I know they are doing it for their  
15 other sites, that is their annual compliance report that  
16 they submit to the CNSC, is it available on their website,  
17 because this would include more than average data?

18                  **THE CHAIRMAN:** Okay. So you're going to  
19 investigate this?

20                  **MR. THORNE:** Andy Thorne, for the record.  
21 That report is available on the fuel  
22 services website, yes.

23                  **THE CHAIRMAN:** Okay.

24                  **MS. LLOYD:** Can I, Dr. Binder, ask, I've --  
25 I know the annual information report is available but I

1 don't think that's the same as the report that is provided  
2 to the CNSC. That's all you ---

3 **MR. ELDER:** That's what I'm trying to  
4 confirm, because my understanding was that it was the same  
5 report they submit to us. And our expectation -- we'll  
6 look into it because our expectation is, on their public  
7 information program, that they should be making those  
8 reports publicly available.

9 **MS. LLOYD:** All right.

10 **THE CHAIRMAN:** Again, you know, I'm a fan  
11 of emission data, well -- you know, water data, wells  
12 data. I don't know why we don't -- why we're trying to  
13 massage them. Just release the reading and let everybody  
14 play with it, if that's what they want to do. Most people  
15 wouldn't want this data but some people do.

16 **MR. ELDER:** So that's what we're doing, and  
17 the public information program is making sure -- all this  
18 -- most of this data is collected by the licensees and we  
19 have been -- now we're putting in place a licence  
20 condition and give us the authority to ensure they make  
21 that data publicly available.

22 **THE CHAIRMAN:** Okay, thank you.

23 Mr. Tolgyesi?

24 **MEMBER TOLGYESI:** My last question is on  
25 page 4 of the same presentation. The intervenor is saying

1 that Cameco's data shows an increase in annual internal  
2 dose as measured by urinalysis and by lung counting,  
3 however, neither CNSC nor Cameco recognize the trend in  
4 the data. Written presentation H18.37, page 4, third  
5 bullet.

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

7 With respect to lung counting data and the  
8 urine data, that was presented in our Day One CMD, and the  
9 average employee dose for lunch counting, for example,  
10 range between 1.5 and 2.3 milliSieverts over those five-  
11 year period and the maximum actually decreased toward the  
12 end of that reporting period.

13 With respect to urine dose, it increased  
14 marginally. The average increased from .1 to .2  
15 millisieverts.

16 Cameco does look at trends and, you know,  
17 deals with them when we consider them adverse.

18 **MS. LLOYD:** Dr. Binder, if I could -- I've  
19 just checked and the compliance report is available on the  
20 Cameco website.

21 I think the comments that came from the  
22 Southwest Research Information Centre -- they didn't  
23 review the information available on Cameco's website.  
24 I've downloaded it and I've looked through it. But I  
25 think their comment was on the information that's

1 available as part of the licence exercise. I don't think  
2 they expected Commission Members to go to Cameco website.  
3 I think their comment is that this information should be  
4 part of the licensing documents and particularly the mid-  
5 term performance report and the CNSC and Cameco Commission  
6 Member documents. I think that's the point they were  
7 making.

8 **THE CHAIRMAN:** Again, I think that staff is  
9 selective about what they're going to put in the report so  
10 we can digest it and send it to literally dozens and  
11 dozens of interested parties. And all I'm arguing is if  
12 somebody has a need for data, they should either write to  
13 the CNSC or to Cameco and, if it's available, we'll  
14 hopefully share them.

15 **MR. ELDER:** Peter Elder.

16 One of the things that we are looking at if  
17 we do annual reports is we will point in our report to  
18 where the data is, the details are. So we're looking at  
19 technology whether we can hotlink it, so if you've got an  
20 electronic version that you just click on it and it will  
21 go to that other link. So we feel there is a need to  
22 summarize it.

23 **THE CHAIRMAN:** Right.

24 **MR. ELDER:** That's what we are paid to do,  
25 to actually summarize that information and identify trends

1 for the Commission. But we understand that people want to  
2 -- may want to see the actual complete data, so we'll try  
3 to make -- see if we can do both.

4 **THE CHAIRMAN:** And just to reply to you,  
5 the Commission Members' data, I've got to tell you, I  
6 don't want to see the raw data.

7 **MS. LLOYD:** But I want you to.

8 **THE CHAIRMAN:** I want to see the summary of  
9 -- that's why we have staff. We have enough to read;  
10 trust me. We have to read -- just going through your  
11 report was interesting.

12 **MS. LLOYD:** All right. May I suggest that  
13 CNSC staff be paid less so they summarize less?

14 **THE CHAIRMAN:** Which means that they'll  
15 transfer their work for us. Is that what you're trying to  
16 say?

17 **MS. LLOYD:** You could be paid more.

18 **THE CHAIRMAN:** I think there's a balance  
19 here somewhere and, again, I always invite people to write  
20 to us. If there's something that you need in terms of  
21 data analysis, please let us know.

22 Dr. Thompson, you wanted to say something?

23 **DR. THOMPSON:** Sorry. Patsy Thompson, for  
24 the record.

25 We mentioned, I don't know if it's

1       yesterday or the day before, that the CNSC will be  
2       beginning an independent environmental monitoring program,  
3       and as part of that work we will be -- we have looked at  
4       whether -- what other agencies are doing around the world  
5       for making data available on websites, and so we've looked  
6       at what's feasible. And we will be presenting a path  
7       forward on this for the CNSC to a management committee  
8       before the end of the fiscal year.

9                   **THE CHAIRMAN:** Monsieur Tolgyesi, c'est  
10       finis?

11                   Dr. McDill?

12                   **MEMBER MCDILL:** My first comment is that we  
13       regularly receive commentary that the information is too  
14       complex, not understood by lay people. So adding another  
15       level of sophistication may satisfy my own personal desire  
16       to see plus and minus and standard deviations, but it  
17       won't help the people of the community who are trying to  
18       understand it the very best they can. Not necessarily  
19       help them. Hotlinks are great.

20                   My first comment to the intervenor is on  
21       your Table 1, are the units micrograms per gram,  
22       micrograms? Your table doesn't have units. I'm assuming  
23       ---

24                   **MS. LLOYD:** From the Northwatch samples?

25                   **MEMBER MCDILL:** Yeah.

1                   **MS. LLOYD:** I'm assuming they're micrograms  
2 per gram. They are consistent with -- let's go back to  
3 the MOE. They're consistent with the MOE units.

4                   **MEMBER McDILL:** That's fine. It's just  
5 without that, it makes it difficult to make a comparison.  
6 I assumed that was the case ---

7                   **MS. LLOYD:** Thank you, yeah. My apologies.

8                   **MEMBER McDILL:** --- but I thought I would  
9 clarify with you.

10                   My next question is for staff and to  
11 address the intervenor's comment on the screening report.  
12 Perhaps you could comment on the role of the screening  
13 report as a planning document as opposed to a contract.

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

15                   Environmental assessment under the *Canadian*  
16 *Environmental Assessment Act* is a process that applies to  
17 the CNSC, and while we delegate technical studies to  
18 proponents, it's something that applies to us in that  
19 before the CNSC can advance and make licensing decisions  
20 we must, as a planning tool, consider the environmental  
21 effects of any project.

22                   So by taking a proposed project through an  
23 environmental assessment and making a decision -- a  
24 favourable decision under an EA, meaning there's no  
25 significant adverse environmental effects, is not an

1 approval of that project. It's simply an evaluation that  
2 CNSC must do before it can consider an approval.

3 **MEMBER McDILL:** So if a company proposed to  
4 do something and then chose not to do it or worked at some  
5 lesser level, that's perfectly acceptable.

6 **MR. RINKER:** Mike Rinker.

7 Yes, that's correct.

8 **MEMBER McDILL:** My next ---

9 **THE CHAIRMAN:** So before you leave this, I  
10 think the intervenor also wanted to hear from Minister of  
11 Environment whether that applied for Certificate of  
12 Approval, that if you set up a limit or authority to do  
13 something they can choose to do it or not do it.

14 I think that's what one of the -- did I  
15 understand what your concern was?

16 **MS. LLOYD:** Well, I think there's two  
17 points, Dr. Binder. One is in 2007 the Minister of the  
18 Environment posted for comment a proposed amendment to the  
19 Certificate of Approval which would have allowed, as I  
20 understood it at the time, the incineration of the uranium  
21 contaminated oil. So that's one point.

22 We don't know the status of that, whether  
23 the decision just hasn't been posted or the decision  
24 hasn't been made.

25 I think the second point is, I think this

1 really is a good case study in why we should have a waste  
2 characterization included in the project description. We  
3 don't know the waste. There's no real description of the  
4 waste. So have the uranium contaminated oils been added  
5 to the waste stream or not?

6 When we see those numbers going up from  
7 2003 to 2007, 2007 to 2011, that -- is that because of  
8 more production, because of changes to the waste stream,  
9 because of failures in the pollution abatement technology?  
10 We don't know, and I think that we should have a really  
11 good description of the waste stream, what's going into  
12 the incinerator and what's coming out, where are the other  
13 wastes, what's their end location, their end point. We  
14 don't have that.

15 **THE CHAIRMAN:** Okay. Well, first thing,  
16 what happened to the application? Is the application --  
17 go ahead.

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

19 I think I can give the chronology. So  
20 initially Cameco made the decision to upgrade the  
21 incinerator and CNSC staff had done a review and decided  
22 an environmental assessment screening report was required.  
23 So we went through that process.

24 As part of that application, we did request  
25 to burn oil in the incinerator as we thought we might --

1 that might be something we would like to do. So the EA  
2 went through the EA process, it was reviewed and accepted  
3 by CNSC, by the Commission and at the same time, or  
4 simultaneously, we also, knowing that we had to amend our  
5 C of A, applied to amend our C of A for the incinerator,  
6 for the upgrade and for the incineration of the oil.

7 Partway through that process -- and I can't  
8 remember how far in now, but partway through that process  
9 in discussions with MOE staff in Toronto, approval staff,  
10 it became clear that the oil component -- not that it  
11 wouldn't fly, but basically it would drag out the approval  
12 process.

13 And at the time, we were -- knowing that  
14 the incinerator was going to be down for an extended  
15 period of time already and, basically, contaminated  
16 combustible material was being backlogged at our site, at  
17 that time we decided that -- to withdraw the oil component  
18 of the application so that we could get the new approval  
19 amended and approved, and that's what happened.

20 Now, I don't know or I guess I didn't  
21 realize that the one on the MOE site was the one that  
22 still had the oil part, so it was obviously after that  
23 that we made the request to the MOE to remove the oil.  
24 But that's what happened.

25 So we did actually apply initially as part

1 of the C of A, but then after discussions we decided to  
2 pull that component.

3 **THE CHAIRMAN:** So is the C of A now  
4 approved or is it still awaiting approval?

5 **MR. DeGRAW:** No, the C of A was approved  
6 back 2007 or early 2008.

7 **THE CHAIRMAN:** And does it describe -- is  
8 it publicly available -- just again, is it a publicly  
9 available document? Does it describe -- what does it  
10 mean?

11 **MR. DeGRAW:** Basically, the incinerator C  
12 of A gives the conditions, it gives things like the  
13 maximum hourly -- you know, how many kilograms per hour we  
14 can burn, and it talks about the technical components of  
15 the incinerator, what emission limits we have to meet. So  
16 it's a technical document, basically.

17 **THE CHAIRMAN:** And in the EA, is the waste  
18 not characterized in detail?

19 I thought when you do the EA one would have  
20 to describe what the waste looks like.

21 **MR. DeGRAW:** I can't remember how much  
22 information was in there, but certainly there was  
23 modelling of emissions based on the incinerator computer  
24 modelling, air dispersion modelling work done on the  
25 assumption that oil would be burned in the incinerator.

1                   **THE CHAIRMAN:** Staff, wouldn't you require,  
2 really, a pretty detailed characterization of the waste in  
3 an EA?

4                   **MR. ELDER:** Peter Elder, for the record.

5                   In the EA you would require it. I think  
6 the point is -- that Northwatch is trying to make is then  
7 there's no trying to find information on what actually  
8 then waste was processed. And this is a point, we are  
9 actually -- one of the other products were working on is a  
10 guide for licensees when they present CMDs and I think  
11 this a point where there could be useful to conclude a  
12 table of what wastes you did produce and processed as  
13 standard information that the Commission gets.

14                   So I think I understand the point, was  
15 there's a EA that says we want to be able to do this, but  
16 there's not a lot of information then saying what was  
17 actually done.

18                   **MS. LLOYD:** Well, 2006 was a while ago, so  
19 I might not be remembering every line of the document, but  
20 as I remember that 2006 screening report, it was a fairly  
21 generalized description of the waste. It said the waste  
22 stream was now going to include combustibles from Port  
23 Hope and uranium contaminated oil.

24                   I don't recall there being a detailed waste  
25 characterization study in that screening report. It is a

1           few years ago, but it was a key issue for us at the time.

2                   **THE CHAIRMAN:** Dr. McDill?

3                   **MEMBER McDILL:** Do we have any comment what  
4           certificate is up?

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

6                   I think Joe gave a description of the  
7           chronological events as to what happened with the oil  
8           there.

9                   Just to clarify, it was likely due to  
10          result of, at the time, there was a moratorium on issuing  
11          approvals for burning waste oil and I believe that  
12          probably went into the decision to withdraw that component  
13          because they weren't being processed.

14                   **MEMBER McDILL:** I can understand how there  
15          would be confusion out there.

16                   My last two questions I hope will be fairly  
17          brief. On page 4 of the intervenor's document there's a  
18          comment that Cameco fails to sample aquatic biota and  
19          sediments. Is that a requirement? I'll pass that to  
20          staff.

21                   I note someone from staff came and moved  
22          up. Did they want to make a comment? No?

23                   Is there a requirement to sample aquatic  
24          biota?

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

1                   There isn't a specific requirement to  
2                   sample anything precise, but what happens whenever we go  
3                   through the process of an environmental risk assessment  
4                   for a facility, which has happened for the Blind River  
5                   facility more recently under the latest EA, is that  
6                   there's a tiered approach. You determine what is the  
7                   releases from -- what are the releases from the facility,  
8                   where would they end up in the environment and what are  
9                   the risks to the environment. And then there's follow-up  
10                  monitoring that is required, there's environmental  
11                  monitoring required under the *Nuclear Safety and Control*  
12                  *Act* and follow-up monitoring which is required under the  
13                  CF. And monitoring programs are then designed to verify  
14                  that either there are no impacts or that impacts are as  
15                  predicted.

16                  So in terms of your question, is there a  
17                  requirement, through those processes the various  
18                  monitoring programs are developed.

19                  **MEMBER MCDILL:** Cameco?

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

21                  As stated in an earlier session, we do  
22                  recognize that the consultant that we hired in the past to  
23                  do this work for us did recommend that in the next five to  
24                  10 years that further sediment sampling do take place, so  
25                  we are committing to it, that we will be carrying that out

1 within this licensing period.

2 **MEMBER McDILL:** You have your light on.  
3 Did you want to add? Okay.

4 My last question is on page 3, the request  
5 from the intervenor on identifying the isotopic forms of  
6 uranium and nucleides. Maybe I could have staff's comment  
7 and then Cameco's comment as well, please.

8 It's just the second-last bullet on the  
9 page, page 3.

10 **MR. JAFERI:** Jafir Jaferi, for the record.

11 CNSC licence requires them to monitor total  
12 uranium and dissolved radium. Now, in terms of isotopic  
13 uranium, 238 or 235 or 234, it's a fixed. There's no  
14 change in natural uranium. Whatever is in that natural  
15 uranium -- for example, 99.3 percent is 238 and .7 is 235  
16 -- that remains. There's no change in processing or  
17 anything on that isotopic ratio. If somebody wants to  
18 know how much is 235, it can be done very quickly.

19 **MEMBER McDILL:** Cameco?

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

21 We do monitor the concentrate feeds coming  
22 into the refinery for isotopic ratio, so as new mines come  
23 on site they would send us their concentrates. We would  
24 have the values of what they're sending as well as what we  
25 refer to as every tenth lot, so we do confirm that the

1 sites only receive natural uranium.

2 **MEMBER McDILL:** Would you like to comment?

3 **MS. LLOYD:** I'm -- this is one of the  
4 comments from the Southwest Research Information Centre  
5 and I was just -- I'd recommend you to read through his  
6 full report. I was just flipping through it and seeing if  
7 I could find the source document for that comment.

8 And so I think it's -- you know, it's  
9 consistent with the other recommendations from SRIC that  
10 there needs to be less aggregating of the data and more  
11 straight data available as part of the review process.

12 So I think -- we've touched on that a  
13 number of times and I think that it applies here as in the  
14 others and I'm, you know, appreciating this comment that  
15 Dr. Binder has said -- made that he doesn't want to read  
16 everything and perhaps having linked documents will remedy  
17 this. But that -- I would really need SRIC to provide us  
18 additional comments and if that's helpful I can get --  
19 provide that to you in the next few days.

20 **MEMBER McDILL:** Thank you, Mr. Binder.

21 **THE CHAIRMAN:** Dr. Barriault.

22 **MEMBER BARRIAULT:** Thank you, Mr.  
23 President.

24 Just briefly, on the issue of Aboriginal  
25 consultation, you've raised the issue and I guess what I'm

1           wondering is, what effort was made towards consultation  
2           with the Aboriginal community around the refinery?

3                         Perhaps I could ask Cameco to comment on  
4           that.

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

6                         The focus of the consultation process has  
7           been within the communities that we operate and our  
8           nearest neighbour is Mississauga First Nation, so through  
9           the communication process and relationship building, we  
10          have been focussing on Mississauga First Nation through  
11          the licensing process and other activities.

12                        The members of the North Shore Tribal  
13          Council, which is the communities -- the First Nations  
14          communities along the north shore, over the years have  
15          been given notifications of significant activities that  
16          are going on at the site to involve them in the process.  
17          And as you've seen today with Serpent River First Nation,  
18          communications has been open with this group, open  
19          dialogue now and developing of these relationships.

20                        **MEMBER BARRIAULT:** Would the intervenor  
21          care to comment on this?

22                        **MS. LLOYD:** Yes, thank you. Brennain  
23          Lloyd, for the record.

24                        I think that we had some description of  
25          this in the CNSC Commission Member Document, and the

1 impression it created was that there were letters sent  
2 out. We heard from CNSC staff yesterday or the previous  
3 day that there were phone calls made in follow-up, and  
4 that's good, that's helpful.

5 One of our comment is, on the document when  
6 the project is being described, the facility is being  
7 described, consistently it's described as being close to  
8 Blind River. It's never described as being immediately  
9 adjacent to Mississauga First Nation.

10 Another comment we made is that there are  
11 other First Nation communities in the immediate vicinity.  
12 I think it's fully appropriate to be reaching out to the  
13 North Shore Tribal Council communities, but I think also  
14 the communities of the United Chiefs in Council of  
15 Manitoulin, those are also communities that are in close  
16 proximity. They're directly across the channel from the  
17 refinery and should also be part of the outreach.

18 **MEMBER BARRIAULT:** So what I'm hearing is  
19 that they have not been consulted?

20 **MS. LLOYD:** That's my understanding based  
21 on the documents provided by CNSC and Cameco and I would  
22 say in particular the two communities directly across the  
23 channel, which is Shishuwani(ph).

24 **MEMBER BARRIAULT:** Does Cameco want to  
25 comment on that? Were they approached?

1                   **MR. ASTLES:** Chris Astles, for the record.  
2                   No, those two communities were not  
3                   approached as they are quite a distance across, you know,  
4                   the body of water, Lake Huron. And our focus has been in  
5                   our local communities, the people that have shown interest  
6                   in us.

7                   **MEMBER BARRIAULT:** Is there a mechanism for  
8                   consultation with them or communication with them? You  
9                   know, I have the impression that just across the channel,  
10                  so is the channel the lake?

11                  **MS. LLOYD:** It's a channel in the lake, so  
12                  there's the north shore, there's the north Channel and  
13                  there's Manitoulin Island. So they're, I don't know,  
14                  maybe 10 kilometres across the channel.

15                  Chris says 30 miles. I have a poor grasp  
16                  of distance. But directly across the channel.

17                  **MEMBER BARRIAULT:** Thank you.

18                  **MR. ELDER:** I'll ask Kimberly Mann who's  
19                  our Aboriginal consultation on the approach we've taken to  
20                  the groups outside other than those identified.

21                  **MS. MANN:** Kimberly Mann for the record.

22                  Beyond the North Shore Tribal Council and  
23                  all its Band Members from surrounding the Blind River  
24                  area, we also contacted the Métis Nation of Ontario and  
25                  the regional councils around Blind River as well as the

1 Union of Ontario Indians. They're a representative  
2 organizational group that the Band Members on Manitoulin  
3 Island are a part of.

4 So if they were -- we shared the  
5 information and we didn't hear back from them.

6 **MEMBER BARRIAULT:** So everybody was  
7 consulted then for all intents and purposes?

8 **MS. MANN:** I believe so.

9 **MS. LLOYD:** Well ---

10 **MEMBER BARRIAULT:** Thank you.

11 Go ahead.

12 **MS. LLOYD:** So the Union of Ontario Indians  
13 is the larger treaty organization. It includes North  
14 Shore Tribal Council and the United Chiefs and Council of  
15 Manitoulin.

16 My -- you know, our comment is that for the  
17 next licensing round in, say, two years the United Chiefs  
18 in Council in Manitoulin should also be included directly  
19 in that consultation and outreach.

20 **MEMBER BARRIAULT:** Thank you.

21 Thank you, Mr. Chairman.

22 **THE CHAIRMAN:** Monsieur Harvey?

23 **MEMBER HARVEY:** Just one brief question.

24 We have represented those two graphs -- those two figures  
25 this morning, they come from the Ministry of the

1 Environment. And while most of the sample -- the trend is  
2 going down, there is two, at least here, where the trend  
3 is going up, but unfortunately this data stopped in 2007.

4 So how would compare the current data at  
5 those stations with what we've got here?

6 Is those two stations where the trend was  
7 going up is it always going up and how come those two  
8 stations we got such trend when for all the others it's  
9 going down?

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

11 Those two stations are located outside the  
12 boundary of the facility but near the fence line. And  
13 it's been observed that there has been some accumulation  
14 of uranium there. It's been observed by the Ministry of  
15 Environment and by the CNSC and it's been tracked for some  
16 time.

17 Cameco does monitoring in that area and  
18 they see similar results and through Northwatch's  
19 intervention you'll see the same observation in the same  
20 area.

21 So we are continuing to look at it. It's a  
22 -- say, maybe an issue that we're tracking. I wouldn't  
23 say yet it's an area of concern because the concentrations  
24 are still very low but they're elevated above the  
25 background in those areas.

1 I believe the Ministry of Ontario may wish  
2 to add they're going to do some follow-up work in the  
3 summer of 2012 but they could provide more details, and  
4 we'll be working with them to see -- get a better  
5 understanding of the accumulation over time.

6 It's quite variable and we had some  
7 explanation from that from MOE yesterday about one year  
8 you find it higher, the next year it's a little bit lower,  
9 but I think in general you can say there is some  
10 accumulation in something that we're tracking.

11 **MS. LLOYD:** If I could, Monsieur Harvey, if  
12 you look in Table 1 of our supplementary filing, you'll  
13 see those two sites that are really high on the chart that  
14 you held up are even higher now.

15 So we were only -- we sampled eight of  
16 those sample plots that are identified in the 2009 MOE  
17 report, and site 2 and site 4, site 2 had an increase of  
18 149 percent and site 4 had an increase of 96 percent from  
19 their 2007 levels.

20 So there is a trend, there is a lot of  
21 variability. And we would be very pleased to hear that  
22 MOE had a sampling program planned for the summer of 2012.

23 **MEMBER HARVEY:** Oui?

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

25 Yes, the Ministry of Environment has --

1 even prior to this sampling event our intention was to do  
2 a re-sampling event in 2012 which was consistent with  
3 every five years looking at it and the last one was 2007.

4 Just a little bit on those results. As  
5 Mike indicated, the results are highly variable and are  
6 expected to be highly variable within the area. So it's  
7 not necessarily fair to say that there's been increases of  
8 150 percent when if you look at that same table, that  
9 Figure 3 that she had up, it showed one year it decreased  
10 by 100 percent.

11 It's not that you expect -- we didn't think  
12 then that the levels went down because we wouldn't --  
13 unless there'd been some remedial action taken to clean up  
14 the soil. It's more of an indication of the actual  
15 variability of results that you would get within the soil.

16 So, I guess that being said, we are  
17 planning to look at it and either way the numbers that  
18 we're getting, even including the samples that Northwatch  
19 took, they are still below our -- any effects based -- any  
20 environmental effects based results that we'd get with  
21 those levels.

22 So if our 2012 sampling continues to show  
23 an increasing trend at a couple of those sites then that  
24 is something that we would have to develop some sort of  
25 plan to look at if more intensive monitoring or anything



1 first time I hear that this is the public -- where did  
2 that come from? The annual public dose?

3 **MR. BUNDY:** Yeah, Kevin Bundy, for the  
4 record.

5 The only place I can recall it being is in  
6 their tritium limit is based on .04 millisieverts, just  
7 700 becquerels.

8 I don't know if the rest of their  
9 radionuclides in drinking water for example are based on  
10 that though.

11 **THE CHAIRMAN:** In all Fukushima argument  
12 and discussion I never saw that number. So I wonder if it  
13 -- if you can either find out where it is and share it  
14 with us.

15 **MS. LLOYD:** The reference is, that is  
16 summarized from the report prepared by Laura Bowman of  
17 Campbell Iler, and it is -- on page 2 of that report the  
18 reference is footnote number 4 and the source is the *Safe*  
19 *Drinking Water Act* from the USEPA. And I understand it  
20 she said the -- it's a 1 millisievert and they do  
21 sometimes apply the .4.

22 **THE CHAIRMAN:** So that's probably for  
23 action more like allowable action purposes?

24 **DR. THOMPSON:** Patsy Thompson, for the  
25 record.

1           As Mr. Bundy has just indicated, when the  
2           CNSC did the review of drinking water standards in various  
3           jurisdictions for tritium in the U.S., the number is based  
4           on 740 becquerels per litre rather than the 7,000 or  
5           10,000 as in other countries. And that corresponds to the  
6           value in millisievert that is presented here.

7                   **THE CHAIRMAN:** So it's only for that for  
8           tritium in water? It's not for ---

9                   **DR. THOMPSON:** That's our understanding.

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

11                  And the next bullet the National Emission  
12           Standard talks about 10 percent of millisievert of ICRP  
13           which contrast with Canada using the full public dose of 1  
14           millisievert.

15                  Can you comment on that? Is it true?

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

18                  We would need to check. We're not aware of  
19           this.

20                  **THE CHAIRMAN:** Okay, thank you.

21                  Anybody else?

22                  You have a final 10-second summary.

23                  **MS. LLOYD:** Thank you, Dr. Binder.

24                  What we are asking of the Commission is to  
25           take all these submissions into consideration and to, in

1 particular, not grant a 10-year licence, grant a five-year  
2 at most, but we would recommend a two-year licence and to  
3 not approve the expanded production.

4 What, in particular, we do not want to have  
5 happen is a long licence period and then licence  
6 amendments made without any public hearing or even an  
7 opportunity to comment.

8 For example, the licence amendment to go  
9 from 12-hour operation to 24-hour operation. As I recall,  
10 I think that was made -- certainly no public hearing, but  
11 I don't think there was even an opportunity for public  
12 comment on that.

13 Those licence amendments are very troubling  
14 to us. So we want licensing to be done in a clear public  
15 transparent accountable way.

16 So make the decisions you need to make to  
17 provide the most rigorous approach and the most  
18 accountable and transparent approach, and that means  
19 avoiding making decisions where you'll do licence  
20 amendments with less than a full process.

21 Thank you.

22 **THE CHAIRMAN:** Thank you.

23 Dr. Thompson?

24 **DR. THOMPSON:** If I could, Mr. Binder, I  
25 should have checked the notes that were prepared, the

1 information on the national emissions standards for  
2 hazardous pollutants that Ms. Lloyd has just quoted, it is  
3 a dose limit of 0.1 millisievert per year for air  
4 emissions only. So that is correct. So it is different  
5 from the CNSC approach.

6 **THE CHAIRMAN:** Okay, well why is it  
7 different?

8 **MR. ELDER:** Historic approach. We are  
9 going to air emissions based on 50 microsieveverts in this  
10 licence.

11 **THE CHAIRMAN:** Okay, well why the Americans  
12 are using something else?

13 **MR. ELDER:** They're using -- well, they're  
14 using 10 percent of the one -- it's going back into  
15 cumulative effects and how do you make sure that --  
16 multiple things.

17 So we have in places where you're -- back  
18 in, but there are -- regulators are different and they  
19 have different approaches.

20 **THE CHAIRMAN:** All of this will be in your  
21 discussion paper, right? Is that correct?

22 **DR. THOMPSON:** That's correct.

23 **THE CHAIRMAN:** Okay, well everybody will  
24 have another kick at this can.

25 Thank you.

1                   **MS. LLOYD:** Thank you.

2                   **THE CHAIRMAN:** We are going to take a 10-  
3 minute break and then do all the written material.

4                   Thank you.

5

6                   --- Upon recessing at 3:10 p.m./

7                   L'audience est suspendue à 15h10

8                   --- Upon resuming at 3:21 p.m./

9                   L'audience est reprise à 15h21

10

11                   **THE CHAIRMAN:** Okay, we are back and ready  
12 to go.

13                   And as before, Marc, you will guide us  
14 through the written material.

15                   **MR. LEBLANC:** I will.

16                   We have 35 such submissions. We're going  
17 to go through them individually.

18                   The first written submission is from the

19                   ---

20                   **THE CHAIRMAN:** Again, for those who are new  
21 today, we've read every single one of them. So if we  
22 sound like we're going very, very quickly it's because  
23 most of the questions have been asked. If there was  
24 something that has not been raised, we will stop and get  
25 it out.

1                   **MR. LEBLANC:** And if I can add to this,  
2                   there's about 40 to 45 percent of the submissions that  
3                   have already been addressed twice already in the last two  
4                   days as written submissions. So in that context, there's  
5                   really 16 or 17 new submissions to be dealt with.

6                   And one of the new ones is the submission  
7                   from the Iron Bridge Public School as outlined in CMD 11-  
8                   H18.2.

9

10                  **11-H18.2**

11                  **Written submission from the**  
12                  **Iron Bridge Public School**

13

14                   **MR. LEBLANC:** Questions?

15                   **THE CHAIRMAN:** No.

16                   **MR. LEBLANC:** The next submission is from  
17                   Milltown Motors Limited as outlined in CMD 11-H18.3.

18

19                  **11-H18.3**

20                  **Written submission from**  
21                  **Milltown Motors Ltd.**

22

23                   **MR. LEBLANC:** The next submission is from  
24                   the Blind River District Health Centre as outlined in CMD  
25                   11-H18.4.

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**11-H18.4**

**Written submission from the  
Blind River District Health Centre**

**MR. LEBLANC:** The next submission is from  
l'École secondaire catholique Jeunesse-Nord as outlined in  
CMD 11-H18.5.

En fait, j'aurais dû dire que le prochain  
mémoire est de l'École secondaire catholique Jeunesse-Nord  
sous le CMD 11-H18.5.

**11-H18.5**

**Written submission from the  
École secondaire catholique  
Jeunesse-Nord**

**MR. LEBLANC:** No questions?

**LE PRÉSIDENT:** Pas de questions.

**MR. LEBLANC:** The next submission is from  
Mr. Kelly James as outlined in CMD 11-H18.6.

**11-H18.6**

**Written submission from  
Kelly James**

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**THE CHAIRMAN:** I do have a question. Staff, I think this Mr. James -- I think Mr. James and maybe not -- Kelly James -- talked about the IAEA coming and auditing the holding for proliferation purposes and to check the work.

So if you look at the second page, first paragraph, what I want to know is, did the IAEA ever find anything out of order in their facility?

**MR. ELDER:** So I'll ask Patrick Burton, who is our safeguards expert, to answer.

**MR. BURTON:** My name is Patrick Burton, for the record. I'm a Senior Safeguards Advisor with CNSC staff.

The IAEA, as you know, goes to Blind River to conduct safeguards inspections fairly regularly. They might be up there up to four times a year.

They do occasionally encounter minor hiccups but to my knowledge they've never encountered anything that was serious in nature and not able to be resolved on the site while the IAEA inspectors were still there.

**THE CHAIRMAN:** So are we satisfied that for safeguard purposes things are being managed properly?

**MR. BURTON:** Patrick Burton, for the

1 record.

2 Yes, absolutely. CNSC is satisfied that  
3 Blind River is meeting its requirements in terms of  
4 safeguards.

5 **THE CHAIRMAN:** Cameco, do you want to add  
6 anything to that?

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

8 No comment other than we are working hard  
9 to meet the IAEA expectations. One note is that we did  
10 have an SNRI between Day One and Day Two Hearings.

11 **THE CHAIRMAN:** Thank you.

12 **MR. LEBLANC:** The next submission is from  
13 Huron North as outlined in CMD 11-H18.7.

14

15 **11-H18.7**

16 **Written submission from**

17 **Huron North**

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19 **MR. LEBLANC:** The next submission is from  
20 the Town of Blind River as outlined in CMD 11-H18.8.

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22 **11-H18.8**

23 **Written submission from the**

24 **Town of Blind River**

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1                   **MR. LEBLANC:** The next submission is from  
2 the Seniors Club 270, as outlined in CMD 11-H18.9.

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4                   **11-H18.9**

5                   **Written submission from the**  
6                   **Seniors Club 270**

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8                   **MR. LEBLANC:** The next submission is from  
9 the Ontario Provincial Police as outlined in CMD 11-  
10 H18.10.

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12                   **11-H18.10**

13                   **Written submission from the**  
14                   **Ontario Provincial Police**

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16                   **MR. LEBLANC:** The next two submissions have  
17 already been considered a few times. The first one is  
18 from Ms. Marilyn Routly as outlined in CMD 11-H18.11.

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20                   **11-H18.11**

21                   **Written submission from**  
22                   **Marilyn Routly**

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24                   **MR. LEBLANC:** And the next one is from Ms.  
25 Jackie Brimblecombe as outlined in CMD 11-H18.12.

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**11-H18.12**

**Written submission from  
Jackie Brimblecombe**

**MR. LEBLANC:** The next submission is from  
Dr. Fryer Professional Dentistry Corporation as outlined  
in CMD 11-H18.13.

**11-H18.13**

**Written submission from  
Dr. R. Fryer Professional  
Dentistry Corporation**

**MR. LEBLANC:** The next submissions have  
already been heard. The first one is from the Port Hope  
and District Chamber of Commerce in CMD 11-H18.14.

**11-H18.14**

**Written submission from the  
Port Hope and District  
Chamber of Commerce**

**MR. LEBLANC:** And another one from Mr.  
Gerhard Heinrich as outlined in CMD 11-H18.15

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**11-H18.15**

**Written submission from  
Gerhard Heinrich**

**MEMBER MCDILL:** Mr. Binder, is there a Blind River Chamber of Commerce or it too small to have a Chamber of Commerce?

**MR. ASTLES:** Chris Astles for the record. Yes, there is a Blind River Chamber of Commerce. It's big enough to have one.

**MR. LEBLANC:** The next submission is from the Rockhaven School for Exceptional Children, as outlined in CMD 11-H18.16.

**11-H18.16**

**Written submission from  
Rockhaven School for  
Exceptional Children**

**MR. LEBLANC:** The next submission is from the Huron Pines Golf & Country Club, as outlined in H18.17.

**11-H18.17**

1           **Written submission from the**  
2           **Huron Pines Golf & Country Club**

3

4                       **MR. LEBLANC:** The next submission, which  
5           we've already considered, is from Ms. Suzanne Frankcom-  
6           Wright, as outlined in 11-H18.18.

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8           **11-H18.18**  
9           **Written submission from**  
10          **Suzanne Frankcom-Wright**

11

12                       **MR. LEBLANC:** The next submission is from  
13          the Municipality of Huron Shores, as outlined in CMD 11-  
14          H18.19.

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16          **11-H18.19**  
17          **Written submission from the**  
18          **Municipality of Huron Shores**

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20                       **MR. LEBLANC:** The next submission is from  
21          Mr. Gerard Rainville, as outlined in CMD 11-H18.20.

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23          **11-H18.20**  
24          **Written submission from**  
25          **Mr. Gerard Rainville**

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**MR. LEBLANC:** The next submission is from the Blind River Public Library, as outlined in CMD 11-H18.21.

**11-H18.21**  
**Written submission from**  
**Blind River Public Library**

**MR. LEBLANC:** The next submission is from Mississauga First Nation, as outlined in CMD 11-H18.22.

**11-H18-22**  
**Written submission from**  
**Mississauga First Nation**

**MR. LEBLANC:** Mr. President.

**THE CHAIRMAN:** This is a letter of support and at least -- just remind me, was that -- did you mention that there was a discussion with the Mississauga First Nation?

**MS. MANN:** Kimberley Mann for the record. We didn't speak directly with the Chief, but we have sent all the information, a number of letters, the participant funding letter and follow-up phone calls

1 to encourage their participation.

2 **THE CHAIRMAN:** But obviously he makes  
3 reference to Mr. Astles and it looks like you guys bonded  
4 here, and it's a very complimentary letter.

5 And I'm just curious; did you not put in  
6 place that you're going to be periodically meeting?

7 **MR. ASTLES:** Chris Astles for the record.  
8 Mississauga First Nation is our nearest  
9 neighbour. They're a kilometre from the refinery. So a  
10 lot of effort went into developing these relationships  
11 with the Chief, the Council, the community as a whole.

12 So the bonding, yes, we developed what's  
13 known as our Memorandum of Understanding. It's a  
14 commitment, a signed document. It was signed at their  
15 annual powwow where it's a commitment between us and the  
16 Mississauga First Nation to develop relationships built on  
17 trust and respect and maintain open and honest  
18 communications and working together in areas of mutual  
19 concern.

20 **THE CHAIRMAN:** So you're going to meet with  
21 them on a regular basis, is what I'm trying to figure out?

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

23 The answer is yes. As well, they do have a  
24 new Chief. They had elections recently and early  
25 December, they had the elections and we've already met a

1 number of times with the new Chief to continue building  
2 relationships with him and others throughout the  
3 community.

4 **THE CHAIRMAN:** Thank you.

5 Mr. Tolgyesi?

6 **MEMBER TOLGYESI:** You were saying that  
7 there are two employees from Serpent First Nation. How  
8 many is the total employees from communities, from First  
9 Nation communities?

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

11 We quote numbers of about 17 percent and  
12 that's from a number of communities. It's not specific to  
13 one. It ranges from Blind River, Thessalon as far away as  
14 Sudbury. We do also have -- in this licensing period we  
15 started a program. It's an apprenticeship program with  
16 the First Nations, where they provide a candidate, and  
17 through joint funding between the two groups, we develop  
18 their skills in the trades areas.

19 And our current apprentice is actually from  
20 the Thessalon First Nations, and he's in the electrical  
21 field to become an electrician.

22 **MR. LEBLANC:** The next five submissions  
23 have already been considered by the Commission. The first  
24 one is from Community Care Northumberland in CMD H18-23.

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1           **11-H18.23**  
2           **Written submission from**  
3           **Community Care Northumberland**

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5                       **MR. LEBLANC:** The next one is from HMC  
6           Consulting, as outlined in CMD 11-H18.24

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8           **11-H18.24**  
9           **Written submission from**  
10          **HMC Consulting**

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12                      **MR. LEBLANC:** The next one is from the  
13          Physicians for Global Survival, as outlined in CMD 11-  
14          H18.25.

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16          **11-H18.25**  
17          **Written submission from the**  
18          **Physicians for Global Survival**

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20                      **MR. LEBLANC:** The next one is from Michael  
21          Murchie, as outlined in CMD 11-H18.26.

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23          **11-H18.26**  
24          **Written submission from**  
25          **Michael Murchie**

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**MR. LEBLANC:** The next submission is from Mr. Victor Allan Glover, as outlined in CMD 11-H18.27.

**11-H18.27**

**Written submission from  
Victor Allan Glover**

**MR. LEBLANC:** The next submission, which is a new one, is from W.C. Eaket Secondary School, as outlined in CMD 11-H18.28.

**11-H18.28**

**Written submission from  
W.C. Eaket Secondary School**

**MEMBER McDILL:** If I could ask, what is the support you've given to the technology department at the high school?

**MR. ASTLES:** Chris Astles for the record. You have to keep in mind that the community has two high schools, one -- there's a French high school and an English high school. And over the years, we've contributed equipment, funding, and sponsorship for various programs, but specifically we did provide them

1 with equipment to redevelop one of their shops in the  
2 welding area. We also provide co-op positions for high  
3 school kids as they come up so they can become exposed to  
4 the industrial world, if they meet the appropriate  
5 criterion. And the specific one is they have to be old  
6 enough to work in the refinery.

7 And then we also help them with career days  
8 and other activities such as that.

9 **MEMBER McDILL:** Thank you.

10 **MR. LEBLANC:** The next submission, which  
11 has already been considered, is from the Northumberland  
12 Manufacturers' Association, as outlined in CMD 11-H18.29.

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14 **11-H18.29**

15 **Written submission from**  
16 **Northumberland Manufacturers'**  
17 **Association**

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19 **MR. LEBLANC:** The next submission is from  
20 Mr. Robert Gallagher, as outlined in CMD 11-H18.30.

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22 **11-H18.30**

23 **Written submission from**  
24 **Robert V. Gallagher**

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1                   **MR. LEBLANC:** The next submission has  
2 already been considered. It is from the McMaster  
3 University, as outlined in CMD 11H-18.31.

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5           **11-H18.31**

6           **Written submission from**  
7           **McMaster University**

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9                   **MR. LEBLANC:** The next submission is from  
10 the City of Elliot Lake, as outlined in CMD 11-H18.32.

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12           **11-H18.32**

13           **Written submission from the**  
14           **City of Elliot Lake**

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16                   **MR. LEBLANC:** The next submission is from  
17 Habitat for Humanity Northumberland, as outlined in 11-  
18 H18.33.

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20           **11-H18.33**

21           **Written submission from the**  
22           **Habitat for Humanity**  
23           **Northumberland**

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25                   **MR. LEBLANC:** The next submission, which

1 has already been considered as was the previous one, is  
2 from the Canadian Nuclear Association, as outlined in CMD  
3 11-H18.34.

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5 **11-H18.34**

6 **Written submission from the**  
7 **Canadian Nuclear Association**

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9 **MR. LEBLANC:** The next submission is from  
10 Mr. Andrew Johncox, as outlined in CMD 11-H18.38.

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12 **11-H18.38**

13 **Written submission from**  
14 **Andrew Johncox**

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16 **THE CHAIRMAN:** To staff, that intervenor is  
17 really concerned about inspection of the drums. How often  
18 do you -- how often does CNSC actually inspect those  
19 drums?

20 **MR. JAFERI:** Jafir Jaferi for the record.  
21 We inspect the refinery almost on a  
22 quarterly basis and whenever we go, waste management is  
23 one area where we do verify the commitment made by the  
24 licensee.

25 The last inspection was done in November,

1 as in the 21<sup>st</sup>, 22<sup>nd</sup>, and we verified that they're looking  
2 after decontaminating the used drums. They have installed  
3 a special dedicated line just for these used drums, where  
4 they sandblast, decontaminate, scan, check, monitor for  
5 free release.

6 **THE CHAIRMAN:** The intervenor also is  
7 complaining about the fact that when MOE came up with this  
8 new standard for uranium in air there was supposed to be a  
9 public hearing about all of this.

10 How did the standard that they came up with  
11 recently -- was there any public hearing on that?

12 **DR. THOMPSON:** There was a public  
13 consultation process. The person from the MOE is gone.  
14 There was a public consultation process on the proposed  
15 uranium in air standard. The MOE produced a science --  
16 what they called a science discussion paper and they held,  
17 that we know of, at least two public information sessions  
18 where people could ask questions and provide their  
19 comments.

20 And then there was a formal comment period  
21 to the MOE where they took that into consideration in  
22 finalizing the standard.

23 **THE CHAIRMAN:** So it was a public hearing  
24 or is it like you can write to them?

25 **DR. THOMPSON:** There were public

1 information sessions where people could go and ask  
2 questions and provide comments and then there was comments  
3 in writing when the proposal was posted on their website.

4 **THE CHAIRMAN:** Okay. Thank you. Mr.  
5 Tolgyesi?

6 **MS. McDILL:** Thank you. Those questions  
7 actually answered my questions.

8 **MR. LEBLANC:** The last written submission  
9 which has already been considered is from Mr. Tyler Rouse,  
10 as outlined in CMD 11-H18.39.

11  
12 **11-H18.39**

13 **Write submission from**

14 **Mr. Tyler Rouse**

15  
16 **THE CHAIRMAN:** Okay. This concludes the  
17 list of written submissions. I think it's now time to go  
18 through a round of -- final round of questions starting  
19 with Monsieur Tolgyesi. No questions? Monsieur Harvey?  
20 Dr. McDill?

21 Dr. Barriault, go ahead.

22 **MEMBER BARRIAULT:** I'm the spoiler. No.  
23 Just briefly on the issue of flooding with  
24 rupture of the dams, any prediction of what level you  
25 would expect the water to rise in and around the refinery?

1                   **MR. ASTLES:** Chris Astles, for the record.  
2                   From the emergency response plan of the  
3 owners of the dams, they're saying four to five metres.

4                   From our consultants' reports, it's  
5 contradicting that, so we are working at resolving why is  
6 there a difference in the flood study modelling.

7                   So as I mentioned earlier, we're hoping to  
8 have that resolved by the -- this year and we'll be  
9 submitting it to the CNSC.

10                  **MEMBER BARRIAULT:** At that level, what  
11 impact would that have on your refinery, of course?

12                  **MR. ASTLES:** Chris Astles, for the record.  
13                  We're also having a third-party review,  
14 what impact that will be to the refinery as a whole.

15                  **MEMBER BARRIAULT:** So when can we expect an  
16 answer to that?

17                  **MR. ASTLES:** There again, they're currently  
18 working on it and we're expecting it by mid 2012.

19                  **MEMBER BARRIAULT:** Okay. Thank you.  
20 Thank you, Mr. Chairman.

21                  **THE CHAIRMAN:** You changed your mind?

22                  **MEMBER HARVEY:** Adjunct to that, I just --  
23 well, the next -- the third studies will solve the  
24 solution. It will be a third point of view and then you  
25 will have to make a choice and, well, the -- okay. Go

1 ahead.

2 **MR. ELDER:** Peter Elder, for the record.

3 Mr. Astles mentioned that they were doing a  
4 review of the consequences of flooding, so we asked them  
5 again in response if this is the post-Fukushima.

6 Regardless of the probability, they need to  
7 do the study about the consequences to see what protection  
8 they can -- what the consequences were and what protection  
9 measures they can take. So you know, the frequency --  
10 we're trying to get it off frequency and said deal with  
11 the worst event you can imagine anyways and have some idea  
12 of how you would deal with it.

13 It'd be nice, yes, there should be a  
14 resolution about which study -- you know, when there's a  
15 big difference you would like to understand this one -- is  
16 that, regardless of the frequency, we still want them to  
17 be able to protect -- have the protective measures  
18 anyways.

19 **MEMBER HARVEY:** So the answer is the choice  
20 would be the study that will show the most extreme event.

21 **MR. ELDER:** If they can come somewhere in  
22 between, it's like we've talked about in the ones in Port  
23 Hope. Maximum probable -- given the geography, what is  
24 maximum probable and make sure that you have the defences  
25 to deal with that.

1                   **MEMBER HARVEY:** Merci.

2                   **THE CHAIRMAN:** Anybody else? I have only  
3 one final question.

4                   In page -- we didn't talk about the six new  
5 wells you put together since Day One, so can you tell us a  
6 little bit about if six is enough to characterize the  
7 whole site? I know it's early days to get some data, but  
8 presumably on an annual report you will start describing  
9 whatever plume there is and the way the water, the  
10 groundwater sort of migrates on site.

11                   Is that the intention?

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

13                   The addition of the six wells is actually  
14 an enhancement to the existing program. As a follow-up to  
15 the Port Hope event, we'd already had a consultant looking  
16 at our groundwater program.

17                   Just last year we had him come back to re-  
18 evaluate it to make sure we haven't missed something, and  
19 he recommended these six wells. So with the data we  
20 collect from these, it's going to further define  
21 protection or monitoring of the groundwater for the site,  
22 so yes.

23                   **THE CHAIRMAN:** So you will share with us  
24 the way the plume moves. I mean, that's what we really  
25 are always interested to see, the impact on the

1 groundwater and the release to whatever -- to the lake.

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

3 We don't have a plume. We're monitoring  
4 the groundwater as we don't have the -- a contamination  
5 problem. So we are monitoring the groundwater flow  
6 through the property of the refinery.

7 **THE CHAIRMAN:** Okay. Staff?

8 **MR. ELDER:** Peter Elder, for the record.

9 I just wanted to confirm there is not --  
10 this is looking for potential problems, not monitoring a  
11 problem.

12 **THE CHAIRMAN:** But it does give you ---

13 **MR. ELDER:** It won't give you ---

14 **THE CHAIRMAN:** --- data on the actual flow  
15 of any contamination, if any.

16 **MR. ELDER:** If there is contamination to  
17 watch, you would. But we'll see what we can do.

18 **THE CHAIRMAN:** Well, otherwise, what do you  
19 need the wells for?

20 **MR. ELDER:** The wells are for to look if  
21 you are contaminating.

22 **THE CHAIRMAN:** That's what I mean.

23 **MR. ELDER:** Yes.

24 **THE CHAIRMAN:** So you want to see the --  
25 whatever you measure over there.

1                   **MR. ELDER:** Yeah.

2                   **THE CHAIRMAN:** Okay. Anything else?

3                   So Marc.

4                   **MR. LEBLANC:** So this brings to a close the  
5 public portion of this hearing. With respect to this  
6 matter, the Commission proposes to confer with regards to  
7 information that it has considered in the context of this  
8 hearing and then determine if further information is  
9 needed or if the Commission is ready to proceed with a  
10 decision. We will advise accordingly.

11                   **THE CHAIRMAN:** Just thank you all for your  
12 patience. It's been a delight, believe it or not, and we  
13 actually learned a lot and are looking forward to some day  
14 return some time in the future.

15                   Thank you.

16

17                   --- Upon adjourning at 3:45 p.m./

18                   L'audience est ajournée à 15h45

19