

1           **HEARING DAY ONE**

2           **Cameco Corporation:**

3           **Application for a licence to operate the Blind**  
4           **River Nuclear Fuel Facility**

5                           THE CHAIRPERSON: The next item on  
6           the agenda is number 7. This is Hearing Day One  
7           for the Application from Cameco Corporation for a  
8           licence to operate the Blind River Nuclear Fuel  
9           Facility.

10                           October 16th was the deadline set  
11           for filing by applicant and by the CNSC staff.  
12           November 8th was the deadline for filing of  
13           supplementary information for applicant and  
14           Commission staff. No supplementary information was  
15           submitted by the Commission staff.

16                           We will begin by the oral  
17           presentation by Cameco Corporation as outlined in  
18           CMD Documents 01-H31.1 and 01-H31.1A. I would call  
19           upon Mr. Bernard Michel, Chair and Chief Executive  
20           Officer of Cameco.

21

22           **01-H31.1**

23           **01-H31.1A**

24           **Oral Presentation by Cameco Corporation**

25                           MR. MICHEL: Good afternoon,

1 ladies and gentlemen.

2 For the record, my name is Bernard  
3 Michel and I'm Chair and Chief Executive Officer of  
4 Cameco Corporation. I am pleased to be here today  
5 in support of my company's request for renewal of  
6 licences for the Blind River and Port Hope  
7 operations.

8 I have with me on my right  
9 John Jarrell, our Vice President of Environment and  
10 Safety and on my left, Bob Steane, Vice President  
11 of Fuel Services who has responsibility for  
12 Cameco's Ontario refining and conversion  
13 facilities, these facilities being grouped together  
14 in what we call the Fuel Services Division.

15 We also have with us, behind me,  
16 other members of our management team from Blind  
17 River and Port Hope who will be introduced later by  
18 Bob Steane.

19 Before I turn matters over to John  
20 Jarrell and Bob Steane who will present details  
21 related to these licence reviews, I would like to  
22 say a few words.

23 When I was here before you a few  
24 months ago, I provided you with an overview of  
25 Cameco as well as my views on the general state of

1 the business in the nuclear industry and Cameco's  
2 commitment to safety and quality assurance. Today  
3 I would like to begin by providing you an overview,  
4 more directly focused on Cameco's fuel services  
5 operations and the business environment they face.

6 Cameco's Fuel Services Division  
7 provides conversion services on a fee for service  
8 basis to utility customers around the world. Our  
9 two production centres in Blind River and Port Hope  
10 combined employ about 370 employees.

11 Blind River has been in operation  
12 since 1983 and Port Hope since the early 1930s when  
13 it was first developed as a radium refinery.  
14 However, today's Port Hope  $UO_2$  plant was  
15 commissioned in 1980 and its  $UF_6$  plant commenced  
16 operations in 1984.

17 We serve two markets with our  
18 conversion capability: one for uranium dioxide,  
19  $UO_2$ , for the Canadian designed CANDU heavy water  
20 reactors; and the other for uranium hexafluoride,  
21  $UF_6$ , for light water reactors. Our market share  
22 for western world requirements is almost 100 per  
23 cent in natural enrichment  $UO_2$  and about 25 per  
24 cent in  $UF_6$ .

25 On the  $UO_2$  side of our business

1           there is no other commercial supplier. There are  
2           three CANDU fuel fabricators, two in Canada -- one  
3           appeared in front of the Commission this morning --  
4           and one in Korea that takes ceramic grade  $UO_2$  from  
5           Cameco to make fuel. The high quality and  
6           consistency of Cameco's  $UO_2$  powder along with our  
7           strong marketing and customer focus accounts for  
8           Cameco's success in this business.

9                           Our second product  $UF_6$  represents  
10           about 80 per cent of our fuel services product mix.  
11           There are currently four  $UF_6$  conversion plants in  
12           the western world. At Port Hope Cameco has a  
13           capacity of 12,500 tonnes per year. Elsewhere,  
14           Comurhex in France has a capacity of 14,000 tonnes.  
15           ConverDyn in the U.S., 12,700 and British Nuclear  
16           Fuels Limited in England, 6,000 tonnes per year.

17                           With annual western demand for  $UF_6$   
18           at about 40,000 tonnes, simple mathematics will  
19           confirm that there is too much capacity and the  
20           negative impact of this overcapacity has also been  
21           exacerbated in the last ten years by the  
22           availability of secondary supplies of  $UF_6$  mostly  
23           from Russia. Uranium converters, including Cameco,  
24           have reduced output in response to these  
25           conditions.

1                   In February this year, British  
2                   Nuclear Fuels announced its decision to exit the  
3                   conversion business in 2006. That decision, we  
4                   believe, will bring the conversion market more in  
5                   balance and this should have a positive and lasting  
6                   impact on Cameco given that BNFL's market will have  
7                   to be taken up by the three remaining industry  
8                   participants. The impact of this announcement has  
9                   already been reflected in the improving prices for  
10                  conversion services.

11                  Due to market constraints over the  
12                  past decade, our conversion facilities have  
13                  operated well below capacity in a depressed market.  
14                  With the rationalization of worldwide conversion  
15                  services and the positive outlook for nuclear  
16                  energy we see our production at fuel services  
17                  remaining stable in the short term and increasing  
18                  moderately in the longer term as additional nuclear  
19                  power plants come into service and as the present  
20                  trend to higher capacity factors for existing  
21                  plants continue.

22                  Now, I would like to focus on  
23                  Cameco's commitment to safety and environmental  
24                  performance specifically at our fuel services  
25                  operations.

1                    Cameco is committed to high  
2 standards of safety and environmental performance  
3 at all our operations, including our Blind River  
4 and Port Hope operations and to continued  
5 improvement. We have successfully introduced  
6 environmental management systems based on continual  
7 improvement at Port Hope and Blind River achieving  
8 ISO 14001 registration at Port Hope in 2000. We  
9 expect to receive similar certification at Blind  
10 River early next year.

11                    Our new corporate Quality  
12 Assurance Program, which is being developed, will  
13 be integrated with the effective Quality Assurance  
14 Programs developed at Port Hope and Blind River.  
15 As part of our larger quality assurance initiative,  
16 we expect to further develop our health and safety  
17 management systems based on an ISO compatible  
18 British Standard at both Port Hope and Blind River.

19                    We at Cameco believe our safety  
20 and environmental performance record at both Blind  
21 River and Port Hope demonstrates a strong  
22 commitment to these very important aspects of our  
23 business. We have maintained good compliance  
24 records at both sides and continue to make  
25 improvements in our attempts to further reduce

1 risks to our employees, to the public and to the  
2 environment.

3 Of particular note is our ongoing  
4 strong commitment to progressive waste management,  
5 a commitment to a program to improve dust control  
6 at both Blind River and Port Hope, the new lung  
7 counter for internal dosimetry being developed, the  
8 strengthening of our quality assurance programs and  
9 our leadership in the development of the Community  
10 Awareness and Emergency Response, CAER, which was  
11 discussed this morning in front of the Commission,  
12 and the Community Awareness Network, CAN, at Port  
13 Hope.

14 I would like to present to the  
15 Commission a chart showing a comparison of the  
16 combined Port Hope and Blind River accident  
17 frequency chart from 1988 when Cameco was formed to  
18 2000, comparing our fuel services performance to  
19 the Canadian chemical producers average  
20 performance. As you can see, our continual  
21 improvement since 1988 with Cameco's combined  
22 statistics doing better than the Canadian chemical  
23 producers average in six of the last seven years.

24 We have reduced the lost time  
25 accident frequency by about 90 per cent at Port

1           Hope since 1988. And until just recently, Blind  
2           River had almost 12 years without a lost time  
3           injury, a truly remarkable achievement by any  
4           industrial enterprise.

5                           I would be remiss if I did not  
6           note the presence of legacy issues surrounding our  
7           fuel services operations, specifically at Port  
8           Hope. In our view, most, if not all, environmental  
9           issues at Port Hope are legacy issues, not issues  
10          caused by Cameco's current operations, which we  
11          believe to be very safe.

12                           Cameco is very supportive and  
13          encourages the federal government and the Town of  
14          Port Hope and the Township of Clarington in the  
15          implementation of the agreement to complete the  
16          clean up Port Hope and complete the work to put  
17          historic waste in secure, long-term storage with  
18          minimal requirement for ongoing treatment and  
19          monitoring. We are also supportive of constructive  
20          community consultation on legacy issues, and we  
21          will support these discussions as best we can.

22                           We realize security is an  
23          important part of our obligations as a CNSC  
24          licensee. We have increased our security at Port  
25          Hope and Blind River since September 11th and are

1 fully cooperating with the CNSC on security issues.

2 In closing, in support of our  
3 request for five year licences, we submit that  
4 Cameco has two operations which are mature with  
5 hazards which are well known and well controlled as  
6 documented in recent safety analysis. Cameco has  
7 implemented appropriate safety and environmental  
8 policies and programs for protection of our  
9 employees, the public and the environment, and is  
10 committed to continual improvement in these very  
11 important aspects of our business.

12 Cameco has had a good regulatory  
13 compliance record at Port Hope and Blind River.  
14 The longer licence period will be beneficial to the  
15 public and to the environment as it will allow  
16 Cameco to shift resource and focus, otherwise  
17 committed to licence renewal applications, to more  
18 directly engage in safety and environmental related  
19 performance improvement measures.

20 I thank you for this opportunity  
21 to address you today. I will now turn over the  
22 presentation to John Jarrell and I would like to be  
23 pleased to answer any question which you may have  
24 after the presentations.

25 John.

1 MR. JARRELL: Thank you.

2 For the transcript record of the  
3 hearings, my name is John Jarrell and I'm Vice  
4 President of Environment and Safety. I would like  
5 to give a brief overview of our written submission  
6 but at the end I will turn this presentation over  
7 to Bob Steane to provide a summary and introduce  
8 the Blind River Cameco personnel who are here  
9 today.

10 First I should point out that the  
11 Blind River refinery when coupled with the Port  
12 Hope conversion facility is one of only two such  
13 uranium conversion facilities in North America.  
14 The other service is located in Illinois. It's  
15 situated on a single site. However, there is  
16 precedence elsewhere in splitting this conversion  
17 operation into two parts. The French also carry  
18 out this operation in two facilities, but they make  
19 the split at the  $UF_4$  stage rather than the  $UO_2$ .

20 The Blind River refinery is  
21 situated about midway between Sudbury and Sault  
22 Ste. Marie, about an hour and a half drive from  
23 each community. The refinery is about 600  
24 kilometres from its sister Port Hope conversion  
25 facility which receives virtually all of the

1 refined UO<sub>3</sub> generated at Blind River.

2 The Town of Blind River currently  
3 has a population of about 4,000 people, which is an  
4 increase of about 3,100 due to recent annexation of  
5 surrounding areas. About 80 per cent of the  
6 refinery employees live in the town with the  
7 remainder in the surrounding rural areas and other  
8 communities.

9 Cameco is one of the largest town  
10 employers but smaller than public sector employers  
11 such as school boards and the hospital. Prior to  
12 the refinery, the surrounding area, mining and then  
13 forestry was the largest source of non-public  
14 sector employment.

15 Blind River is located about 55  
16 kilometres by road or about 32 kilometres by air  
17 from Elliot Lake, which was the centre of Canada's  
18 uranium mining sector before Northern Saskatchewan  
19 took the forefront.

20 As shown in this photo on the  
21 slide, the Blind River refinery is somewhat removed  
22 from the town. It's shown where the arrow is  
23 located.

24 The refinery site is located where  
25 the Mississagi River discharges into Lake Huron.

1           The original design objective was to situate the  
2           facility with the surrounding controlled land use  
3           zone of about one kilometre in radius. This zone  
4           hosts a golf course as you can see in this photo;  
5           initially nine holes but it was recently expanded  
6           to 18 holes last year.

7                           Including the controlled land use  
8           zone, the site occupies a total of 636 acres with  
9           an additional 481 acres of lease arrangement to the  
10          east, or in the top right portion of this photo.  
11          The actual CNSC licensed site is 28 acres in size.  
12          The refinery has been in operation since 1983  
13          replacing a similar circuit which operated in Port  
14          Hope between 1955 and 1984.

15                           It was initially assessed for a  
16          potential site for an integrated refinery and  
17          conversion facility under the EARP process in 1978.  
18          The plan was subsequently reduced in scope to just  
19          a UO<sub>3</sub> refinery and the actual location on the  
20          property was somewhat modified as the project wound  
21          its way through the then AECEB site construction and  
22          operating approval processes.

23                           The process begins with uranium  
24          ore concentrate, which is the form of uranium which  
25          results from the first stage of purification at the

1 mine site. An earlier common form of this  
2 concentrate, ammonium diurate was bright yellow  
3 in colour and hence the term "yellow cake." Yellow  
4 cake is now usually calcined to black  $U_3O_8$  to  
5 eliminate the ammonia, which is why it's done.

6 In any event, the material is  
7 first weighed, sampled, blended prior to entry into  
8 the circuit. The process consists of a number of  
9 steps. The first step is dissolution of the  
10 concentrate in nitric acid and a three stage  
11 digestion. This is followed by a three stage  
12 solvent extraction process to provide the actual  
13 refining. This is followed by a three stage  
14 evaporation process to boil down the solution and  
15 prior to a high temperature thermal decomposition  
16 or what we call denitration to  $UO_3$ , which also  
17 ironically is also yellow powder.

18 There is two key supplemental  
19 features on this circuit. One is to produce a  
20 reclyable or calcine product for uranium recovery,  
21 which is from the rejected impurities of the  
22 solvent extraction process. The other is a nitric  
23 acid recovery circuit which recovers nitric acid  
24 from the denitration and the calcined product,  
25 production circuits.

1                   In summary, the refinery provides  
2                   the second and final stage of purification of  
3                   uranium before it's chemically converted into the  
4                   forms necessary to make natural  $UO_2$  pellets or  
5                   enrich the material prior to further conversion to  
6                    $UO_2$  as enriched material.

7                   The Blind River refinery is hence  
8                   a single product site producing a highly purified  
9                   intermediate for further chemical conversion prior  
10                  to nuclear fuel production. The refinery was  
11                  designed for and licensed for 18,000 tonnes of  
12                  uranium per year, however, the market has not yet  
13                  required that level of production. The  $UO_3$  is  
14                  shipped in 11,500 kilogram  $UO_3$  tote bins. These  
15                  tote bins are loaded on a truck, three to a truck  
16                  and shipped to Port Hope using a sole source  
17                  contractor for consistency.

18                  The containers which are used were  
19                  modeled from a smaller but similar container used  
20                  earlier in the U.S. They are cycled between the  
21                  two sites and there is about a hundred -- well,  
22                  there are 198 tote bins in service.

23                  Disposal and then recycle of the  
24                  solvent extraction circuit raffinate stream has  
25                  been the main waste management focus for the

1 refining operation, both at Blind River and earlier  
2 at Port Hope since 1955.

3 In 1979 recycle of raffinate to  
4 uranium mills began, both to recover the uranium  
5 content of the material and also uses its sulphuric  
6 acid content. It contains sulphuric acid because  
7 of a process to recover nitric acid from the  
8 material.

9 In total, concentrated liquid  
10 raffinate was recycled to five different Ontario  
11 uranium mine mill operations over a 19-year period,  
12 recovering over half a million pounds of uranium  
13 before closure in 1996.

14 The demise of this recycle program  
15 rested with the economic realities of low-grade  
16 uranium mining, not with the technical or  
17 environmental concerns with this material. In its  
18 place a circuit was installed to produce an even  
19 more concentrated product in oxide rather than  
20 purely sulphate form, with about 2 to 6 per cent  
21 uranium content.

22 The refineries always operated  
23 with a batch effluent release system which affords  
24 additional protection against the discharge of  
25 off-spec effluent. In addition, an offshore

1 diffuser pipeline was installed, complete with a  
2 diffuser, to ensure that the effluent is well  
3 dispersed, with a minimum 100-fold dilution some  
4 one-half kilometres offshore in about four metres  
5 of water.

6 The picture shows where the  
7 effluent pipeline enters the North Channel of Lake  
8 Huron.

9 While this level of environmental  
10 protection may have been considered fully  
11 acceptable in the 1980s, Ontario legislative change  
12 led to the installation of additional equipment,  
13 beginning in 1996, to better control end of pipe  
14 toxicity and suspended solids.

15 Most notably Blind River installed  
16 a hydrogen peroxide ultraviolet photo oxidation  
17 water treatment system to improve the toxicity of  
18 the effluent.

19 In the fall of 1999 a fourth  
20 effluent lagoon was constructed to provide  
21 additional flexibility. This fourth lagoon was not  
22 lined on the inside with sand and gravel, as was  
23 done with the original three lagoons. An  
24 ultraviolet resistant liner was used. As well, two  
25 of the three original lagoons were also relined.

1                   The objective was to reduce the  
2 surface area for algae growth, since algae forms a  
3 large part of the suspended solids load in the  
4 water. In combination, the changes made to the  
5 effluent treatment system have been quite  
6 successful in meeting the new Ontario requirements.

7                   Effluent toxicity objectives are  
8 consistently being met. However, periodic  
9 suspended solids excursions, particularly in the  
10 summer, are requiring ongoing attention.

11                   The Blind River refinery currently  
12 operates on a semi-continuous mode, whereby the  
13 plant operates on a sustained basis for 20 to  
14 25-day campaigns and is then shut down. During the  
15 shutdown the calcined product circuit used to  
16 process the raffinate continues to operate  
17 typically for an additional five to ten days, and  
18 of course the feed sampling activities also  
19 continue.

20                   This picture shows the denitration  
21 gallery on the upper level and the tote bin filling  
22 area below, and part of the nitric acid recovery  
23 circuit can be seen in the background.

24                   The refinery currently operates  
25 with 95 job positions, in addition to a security

1 contractor which provides 24-hour coverage.  
2 Continuous shift operations are staffed by a  
3 six-person crew, which includes a shift supervisor.

4 Production rates have been in the  
5 range of 10,000 to 12,000 tons of uranium per year  
6 in recent years.

7 The picture in the background of  
8 this slide shows the ammonia storage tanks.  
9 Ammonia is used for pH control since it can  
10 neutralize acid, yet thermally decomposes leaving  
11 no residue in either the  $UO_3$  product or the  
12 raffinate based calcined product.

13 Over the past two-year licensing  
14 period priority has been given to further  
15 optimizing the effluent treatment system installed  
16 over the 1996 through 1998 time frame. Other  
17 priority projects have included a major update to  
18 the refinery safety analysis and development of a  
19 formal EMS system, or environmental management  
20 system.

21 In addition, the recycle program  
22 for calcined product is served both to eliminate a  
23 potential future waste management liability and  
24 preserves a valuable energy resource as well.

25 The picture in this slide shows

1 the bottom of the three-stage uranyl nitrate  
2 evaporator circuit which is between the solvent  
3 extraction and denitration processes.

4 The Blind River refinery continues  
5 to be a Cameco leader in conventional safety. As  
6 this graph shows, the refinery achieved almost 12  
7 years lost time free during the current licensing  
8 period, achieving the 2 million work hours lost  
9 time action free benchmark on September 27th of  
10 this year.

11 Unfortunately, we have to report a  
12 recent lost time injury. On October 31st a welder  
13 suffered a crush injury to the tip of his index  
14 finger while carrying out some fabrication work.

15 Despite this setback, it would be  
16 fair to say that the Blind River organization has  
17 exhibited a strong commitment to addressing  
18 conventional safety issues and achieving high  
19 levels of performance.

20 This slide summarizes average and  
21 maximum individual whole body gamma doses over the  
22 current licensing period to June 2001. The data  
23 show a good margin of compliance with the five-year  
24 average effective dose limit of 20 milliSieverts  
25 per year. However, this limit also includes

1 internal dose from radioactive dust, specifically  
2 uranium, and to a lesser extent from thorium in our  
3 case, as well as radon progeny exposure, which are  
4 not yet fabricated into this dose data.

5 While radon is not a significant  
6 source of exposure, we do need to develop an  
7 improved internal dosimetry system. We have  
8 elected to purchase a replacement more sensitive  
9 germanium based detector system, as outlined to the  
10 Commission on May 30, 2001 in CMD 01-M35.

11 No significant body burdens of  
12 uranium had been measured using the existing  
13 phoswich lung counting facility when its results  
14 are combined with the urinalysis program results.

15 While the original lung counting  
16 facility which was purchased in 1979 cannot provide  
17 the resolution necessary for low level internal  
18 dosimetry, the existing system over time provides  
19 assurance of long-term protection and compliance.

20 Over the current licensing period  
21 the focus has not been solely on internal dosimetry  
22 but also on work to reduce the dose from internal  
23 exposure. A number of workplace dust control  
24 initiatives have been carried out or are under way.  
25 Specifically, overall process area clean-up

1 campaigns were organized in 2000 and 2001 to reduce  
2 the possibility of long-lived radioactive dust  
3 resuspension during operations and maintenance.

4 As shown in these two photos, the  
5 ore concentrate drum dumping package has been  
6 selected for upgrade in early 2002 specifically to  
7 provide a greater level of automation, thereby  
8 reducing potential operator exposures and  
9 minimizing area airborne uranium levels.

10 A campaign was also carried out to  
11 upgrade and improve maintenance on mechanically  
12 sealed equipment, again to reduce potential dust  
13 exposure.

14 We see an overall improving trend  
15 in dust control and hence in internal dose control.  
16 Having said that, however, these improvements  
17 cannot be attributed to any one specific initiative  
18 yet.

19 Over the last licensing period no  
20 CNSC regulatory levels have been exceeded. The  
21 combination of good control on emission and  
22 effluent abatement equipment, coupled with timely  
23 and effective response to process upset events, has  
24 resulted in good environmental performance.

25 The environmental monitoring

1 program includes sampling of air and water  
2 emissions, high-volume air sampling of ambient air,  
3 both near the plant and in the town of Blind River,  
4 as well as both surface and groundwater monitoring.

5 The photo on this slide shows a  
6 high volume total suspended particulate air  
7 sampler. The filter paper collects particulate  
8 typically for two weeks or a two-week period before  
9 change.

10 In the year 2000 the overall  
11 refinery derived release limit, or DRL, was  
12 reassessed. The DRL defines the maximum emission  
13 rate which would result in a public dose of one  
14 milliSievert per year, to the maximally exposed  
15 individual.

16 This is obviously not a relevant  
17 control point and provides insight into the public  
18 dose associated with various facility emissions.  
19 Even though the public dose limit has been reduced  
20 by a factor of five, the DRL value for air  
21 emissions is virtually unchanged, primarily due to  
22 the use of more accurate or less conservative air  
23 dispersion models.

24 The DRL value for water emissions  
25 was lowered by a factor of seven, primarily due to

1           this lower public dose limit.

2                           The maximally exposed individual  
3           assumed in this DRL calculation is an adult living  
4           in what is called the Lantane subdivision, which is  
5           the closest resident, and working at the golf  
6           course. This individual would receive less than  
7           0.7 per cent of the public dose limit, not less  
8           than the 7 per cent as noted in the written text,  
9           which is also true but is a typo in our written  
10          text.

11                          Eighty-five per cent of the dose  
12          is attributed to gamma exposure due to proximity of  
13          the golf course to the refinery.

14                          As previously noted, effluent  
15          treatment modifications have been quite successful  
16          in meeting Ontario requirements for end of pipe  
17          non-toxic effluent and reduced suspended solids  
18          concentrations.

19                          For reference, the Ontario MISA  
20          effluent toxicity requirements are similar to but  
21          somewhat stringent to those proposed new federal  
22          metal mining liquid effluent regulations which we  
23          discussed with you with respect to the mine sites.

24                          The only remaining problem of note  
25          is occasional suspended solids excursions due to

1 the presence of sub-micron algae. While retaining  
2 water in ponds for monitoring no doubt provides an  
3 additional measure of environmental protection, it  
4 also is likely at the expense of some additional  
5 algae growth.

6 In any event, the effluent passed  
7 all MISA required acute toxicity tests during the  
8 current licensing period. Chronic tests for which  
9 there is no pass/fail criterion has shown neither  
10 none or minimal growth or reproduction inhibition  
11 for the test species used.

12 During the current licensing  
13 period six separate soil sampling campaigns were  
14 carried out. Uranium concentration in soils are  
15 well below phytotoxic or observed effects levels.  
16 The main objective of the work is to monitor and  
17 study the potential buildup of uranium in soil in  
18 close vicinity to the refinery, as well as the  
19 controlled land use zone previously described.

20 Soil uranium concentrations are  
21 generally low, averaging under 4 parts per million  
22 in close proximity to the perimeter fence, while  
23 more distant sites remain at pre-operational  
24 average levels of less than 2 parts per million.

25 That said, there is background

1           variability in these pre-operational baselines with  
2           numbers ranging from about one to three parts per  
3           million.

4                           Our best current estimate of  
5           uranium accumulation since 1983 in close proximity  
6           to the fence line is about 1.1 to 1.3 parts per  
7           million of uranium.

8                           During the current licensing  
9           period Blind River was able to maintain a stable  
10          inventory of both calcined product generated from  
11          solvent extraction raffinate, as well as the  
12          regeneration material, this latter material being  
13          an organic based material also generated from the  
14          solvent extraction process.

15                          These two waste materials  
16          essentially define the refinery's processed  
17          generated waste, but both are further processed to  
18          recyclable products.

19                          The pictures on this slide show  
20          what the calcined product looks like. It is a  
21          free-flowing fine to coarse powder. It is reddish  
22          in colour due to its iron content. The normal  
23          on-site inventory of this material is about 1,500  
24          to 3,000 drums. Including other non-process  
25          related materials, the average drummed inventory of

1 material is about 5,200 to 6,200 drums, which is at  
2 present the stabilized inventory due to fairly  
3 aggressive internal recycling and waste  
4 consolidation efforts.

5 The current waste management  
6 priorities are the development of an alternative  
7 outlet for calcined product, the ongoing program  
8 for waste consolidation, and improved management of  
9 scrap drums.

10 A one-month trial of processing  
11 calcined product at Key Lake took place from August  
12 21st through September 16th of this year. A total  
13 of 67 tonnes, or 357 drums of this material, were  
14 processed during this test period.

15 Pending regulatory approval of  
16 test results collected to verify that this material  
17 can be successfully recycled, we expect to see  
18 permanent approval to continue this operation.

19 The most recent preliminary  
20 decommissioning plan was submitted to CNSC staff in  
21 May 2001. We are presently working on addressing  
22 staff comments.

23 It should be noted that a  
24 preliminary plan has been in place for the Blind  
25 River refinery since 1990. Costs associated with

1           this plan have until now been dealt with as an  
2           accounting provision in Cameco's financial  
3           statements, not as hard financial assurances.

4                       Copies of environmental sections  
5           of the CNSC quarterly reports are regularly  
6           submitted to what is called the Blind River Area  
7           Environmental Monitoring Committee, which is  
8           currently scheduled to meet on a semi-annual basis.

9                       This committee met four times over  
10          the current licensing period, with two of the four  
11          meetings achieving a quorum.

12                      At the last meeting, held on  
13          October 30, 2001, we presented this current CNSC  
14          presentation to the committee. Quarterly reports  
15          have also been provided to the town of Blind River  
16          and the Mississauga First Nation. The refinery  
17          manager has given priority to maintaining liaison  
18          with these local government organizations,  
19          discussing the licensing process and providing  
20          updates on Cameco's activities.

21                      On November 5, 2001 this current  
22          CNSC presentation was also given to town council,  
23          and a similar presentation to the Mississauga First  
24          Nation is scheduled for later this month.

25                      Cameco will continue to maintain

1 liaison with local emergency measure groups,  
2 notably the volunteer fire department and the  
3 Ontario Provincial Police.

4 Plant visits and tours were  
5 carried out during the current licensing period for  
6 two local high schools, a local college group and  
7 the Emergency Measures group. In addition, local  
8 school and community initiatives, such as student  
9 internship replacements, support of science fairs,  
10 high school career day presentations, and  
11 involvement in annual Salute to Emergency Services  
12 Community Fair, such as that shown on the slide,  
13 all help to support the position that Cameco plays  
14 an integral role in the local community.

15 Cameco retained an emergency  
16 response plan development consultant to review and  
17 assist in updating the site emergency response plan  
18 for on and off site emergency response. A copy of  
19 this update will be forwarded to the Blind River  
20 CNSC project officer, as well as the town,  
21 Mississauga First Nation, police and local  
22 hospital.

23 During the original licensing  
24 process for the refinery in the early 1980s a  
25 safety analysis was prepared. Over the years this

1 work has been supplemented through facility  
2 licensing manual submissions, and in 1999 work was  
3 initiated on a major revision to the original work,  
4 using HAZOP methodology.

5 This 14-month consultant assisted  
6 but internally driven systematic review was  
7 completed in October 2000. The work generated  
8 listings of risk based objectives to further  
9 improve the safety of the operation and to help us  
10 formally define safety related systems, such as  
11 emission control systems, ammonia and back-up power  
12 systems.

13 When combined with a new analysis  
14 of credible accident scenarios arising from the  
15 original work, the current safety analysis forms  
16 the basis of our confirmation that the design and  
17 operating controls that are in place are  
18 sufficiently protective to operate a safe facility.

19 I will now call upon Bob Steane to  
20 describe future outlook for the Blind River  
21 refinery, summarize the production and introduce  
22 the Blind River personnel here today.

23

24 MR. STEANE: Thank you, John.

25 I would now like to address the

1 future outlook and summarize the presentation.

2 There have been no major changes  
3 in Blind River operations that are currently  
4 contemplated during the requested five-year  
5 upcoming licence period.

6 It is anticipated that production  
7 requirements will continue to increase, but at a  
8 slow to moderate pace as additional nuclear power  
9 plants come into service and as the present trend  
10 of increasing the higher capacity factors for  
11 existing plants continues.

12 But that is not to say that we  
13 will not continue to find ways to enhance our  
14 operation. Our efforts will continue to improve  
15 the plant operation and further reduce the impact  
16 of the operation.

17 Cameco is also in the process of  
18 implementing a number of quality assurance  
19 initiatives. These include an Environmental  
20 Management System or EMS based on the ISO 14001  
21 standard. The EMS Certification Audit for Blind  
22 River was carried out by the Registrar on October  
23 22 to 25. And we are anticipating registration  
24 early in the new year.

25 We are implementing a Health and

1 Safety Management System, or HSMS, as well as an  
2 Operational Quality Management System based upon  
3 the CNSC request to Cameco  
4 to develop a corporate-wide  
5 quality assurance program.

6 The formal UO<sub>3</sub> product quality  
7 product QA program is also in development.

8 We will strive to integrate all  
9 these initiatives to the maximum extent practicable  
10 as these programs continue to evolve over the next  
11 licensing period.

12 We have requested a five-year  
13 licence renewal largely on the basis of what we  
14 believe is a good record of maintaining safe and  
15 environmentally responsible production. We feel  
16 that we have demonstrated good occupational health  
17 and safety performance, consistent good  
18 environmental protection, significant progress on  
19 implementing formal quality assurance and have in  
20 place policies and programs to protect workers, the  
21 public and the environment.

22 Now, this isn't to say that issues  
23 of regulatory interest won't develop over the next  
24 licensing period. Rather, we are saying that the  
25 combination of the good follow-up on issues,

1 priority to continual improvement and a well  
2 established regulatory reporting and assessment  
3 mechanism produce a system which is compatible with  
4 longer licensing periods.

5 The balance between licensing-  
6 based activity and activity focused on safety  
7 program operation analysis and inspection is, in  
8 our opinion, beneficial for both CNSC staff and  
9 Cameco staff, given the anticipated limited future  
10 safety program change from existing status over the  
11 next five years.

12 So in summary, we believe that  
13 Blind River continues to show leadership in Cameco  
14 plant safety, being a Cameco leader in terms of  
15 conventional health and safety, have demonstrated  
16 good control on radiation exposure while  
17 maintaining steady production operations, have  
18 demonstrated good control on environmental  
19 emissions, both chemical and radiological while  
20 also implementing a formal environmental monitoring  
21 system.

22 We have always shown a responsible  
23 approach to waste management, having operated the  
24 refinery for over 18 years without any access to a  
25 low level reactive waste disposal site and have

1 shown commitment to maintaining good relationships  
2 with the local neighbours by participating in  
3 community initiatives, maintaining ongoing dialogue  
4 with the town and the Mississauga First Nation and  
5 providing public review of its performance.

6 In consideration of Cameco's  
7 ability to operate the facility in a safe efficient  
8 manner and in compliance with our CNSC licence, we  
9 respectfully request renewal of the Blind River  
10 licence.

11 Now, I have with me today  
12 Catherine Green who is the manager of the Blind  
13 River operation and Joe DeGraw who is the  
14 superintendent of Environment and Quality  
15 Assurance. We have centralized the QA radiation  
16 safety, environmental and conventional health  
17 safety aspects of the operation into the QA group  
18 which Joe heads.

19 We have assembled here at this  
20 hearing a group of employees who hopefully can  
21 provide any clarification or address any questions  
22 which the Commission may have on this presentation,  
23 or on any other matter which the Commission may  
24 wish to discuss today.

25 If we are unable to adequately

1 address these issues, we would, of course, be fully  
2 prepared to do so at the Day 2 Hearing currently  
3 scheduled for January 17th, 2002.

4 In any event, we will be glad to  
5 answer your questions either now or later in these  
6 proceedings.

7 Thank you for your attention.

8 THE CHAIRPERSON: Thank you very  
9 much.

10 With the permission of the  
11 Commission members, I would like to delay  
12 questioning to the licensee until we have heard  
13 from the CNSC staff.

14 I would therefore call upon the  
15 CNSC staff to give their oral presentation as  
16 outlined in CMD document 01-H31. I would call upon  
17 Mr. Pereira, please.

18

19 **01-H31**

20 **Oral presentation by CNSC staff**

21 MR. PEREIRA: Thank you, Madam  
22 Chair. For the record, my name is Ken Pereira.  
23 I'm the Director General of the Directorate of Fuel  
24 Cycle and Materials Regulation.

25 CNSC staff's recommendations with

1           respect to the Cameco Corporation request for  
2           renewal of the licence to operate the Blind River  
3           fuel facility is that the Commission approve the  
4           issuance of a licence with a term of five years.

5                           This recommendation is based on  
6           CNSC staff conclusions regarding the stability of  
7           the operations, their management of safety hazards  
8           and environmental impacts and the operating  
9           experience and compliance record of the facility.

10                           I will now invite Mr. Michael  
11           White, head of the Uranium Processing Facilities  
12           Section to present an outline of the considerations  
13           that form the basis for the CNSC staff  
14           recommendation.

15                           MR. WHITE: Thank you, Mr.  
16           Pereira.

17                           For the record, my name is Michael  
18           White. I am head of the Uranium Processing  
19           Facilities Section.

20                           Madam Chair, members of the  
21           Commission, my presentation this afternoon  
22           represents a summary of the key points of the CMD  
23           concerning Cameco Corporation's application for the  
24           renewal of the operating licence for its nuclear  
25           fuel facility in Blind River, Ontario.



1 of the uranium and the properties of the other  
2 hazardous substances used in the refining  
3 operation.

4 Risk control measures: A  
5 comprehensive approach is taken to mitigate the  
6 hazards, to prevent unreasonable risk to the  
7 environment, the health and safety of the workers  
8 and the public and to national security.

9 The measures employed to minimize  
10 radiation doses and other risks can be thought of  
11 as a series of barriers

12 First, there are the built-in  
13 features of the processes and equipment to contain  
14 the hazardous substances and to capture any  
15 leakages, so as to preclude their dispersion in the  
16 workplace and to remove uranium and other  
17 pollutants from airborne emissions and liquid  
18 effluents prior to their discharge to the  
19 environment.

20 The second barrier in the series  
21 is Cameco's internal controls. These include the  
22 quality assurance program to maintain the integrity  
23 and reliability of equipment; the radiation  
24 protection program to monitor radioactive  
25 contamination levels in the workplace and the

1 radiation doses sustained by workers; and the  
2 environmental monitoring program to measure the  
3 releases of uranium to the atmosphere and to the  
4 lake and the uranium concentrations in the air,  
5 water, including the ground water, and soil around  
6 the facility.

7 The third barrier in the series is  
8 the assessments and compliance verification  
9 activities carried out by CNSC staff to check the  
10 design and efficacy of all the precautions taken.  
11 These activities are complemented by Ontario  
12 Ministry of the Environment's review and approval  
13 of the emission abatement systems.

14 Risk control performance,  
15 protection of workers: Details of the data from  
16 the radiation protection program: specifically,  
17 external radiation doses sustained by workers to  
18 the whole body, the skin and the extremities and  
19 the results from analysis of urine samples and  
20 thorax burden measurements, lung counts, are  
21 reported in the CMD.

22 Briefly said, no external  
23 radiation dose exceeded the applicable limit and  
24 almost all the doses were only a fraction of the  
25 limit.

1                   Similarly, the data from  
2                   urinalysis and from lung counts, which serve as  
3                   indicators of uranium in workers' bodies, showed no  
4                   measurable intake in almost all cases.

5                   Protection of the environment and  
6                   the public: Data from the environmental monitoring  
7                   program is reported in the CMD. During the current  
8                   licensing period, none of the results for uranium  
9                   or any other hazardous substance in releases to the  
10                  environment exceeded the limits prescribed in the  
11                  licence.

12                  The stack sampling results have  
13                  consistently shown that the emission abatement  
14                  systems in place at the facility are effectively  
15                  controlling releases to the atmosphere.

16                  The liquid effluent sampling  
17                  results have also shown that the effluent treatment  
18                  system is effectively controlling uranium and other  
19                  substances in discharges to the lake.

20                  Using data from analyses of  
21                  emissions to the atmosphere from the facility in  
22                  the exposure pathway model, the maximum radiation  
23                  dose to a member of the public has been estimated  
24                  as approximately 3.9  $\mu\text{Sv}$ . This is equivalent to  
25                  0.39 per cent of the public dose limit of 1 mSv.

1                   Other performance factors: CNSC  
2 staff has concluded from the assessments and  
3 inspections that have been carried out during the  
4 current licensing period, that:

5                   Cameco's internal controls and  
6 performance with respect to Safeguards and Security  
7 are acceptable; its Quality Assurance Program, to  
8 be implemented, is acceptable; and that its  
9 Emergency Preparedness and Response Plan and  
10 Conventional Health and Safety Program are  
11 acceptable.

12                   The Preliminary Decommissioning  
13 Plan for the facility did not entirely satisfy  
14 CNSC's expectations, however. Cameco is currently  
15 working to supply additional information and to  
16 develop a form of financial assurance which meets  
17 the requirements set out in the Regulatory Document  
18 G-206. It is expected that the shortcomings in the  
19 Plan will have been remedied and that a suitable  
20 financial guarantee will be in place before the Day  
21 2 Hearing on Cameco's application. If this is not  
22 the case, then at that time, CNSC staff will  
23 propose an appropriate condition to be included in  
24 the operating licence.

25                   Other relevant information:

1                   Canadian Environmental Assessment  
2           Act: Renewal of the facility licence provides for  
3           activities relating to a physical work. This  
4           constitutes a project for the purposes of the  
5           Canadian Environmental Assessment Act and thus, the  
6           environmental effects of the facility have to be  
7           assessed before the Commission can make a decision  
8           on renewal of the operating licence.

9                   A screening report was prepared  
10          for the facility prior to the renewal of the  
11          operating licence in 1995. It was concluded at  
12          that time that the activities to be carried on were  
13          not likely to cause significant adverse  
14          environmental effects with the mitigation measures  
15          in place. The activities to be carried on under  
16          the proposed new licence are the same as those  
17          assessed in 1995. For that reason, the screening  
18          report remains valid and, by virtue of the  
19          provisions of the CEAA Exclusion List Regulations,  
20          a new environmental assessment as a basis for the  
21          Commission's decision making on this licence  
22          application is not required.

23                   Fire safety program: CNSC staff  
24          and Cameco have taken a number of actions to  
25          improve fire safety precautions at the facility to

1           comply with the National Fire Code and the National  
2           Building Code. Certain work remains to be done to  
3           meet the applicable requirements. CNSC staff will  
4           check for the completion of these improvements  
5           during future inspections of the facility. The  
6           absence of full compliance at this time is not  
7           considered an impediment to the renewal of the  
8           operating licence, however.

9                           Cost recovery: Cameco has paid  
10           the licensing fee for the facility.

11                           Public information: A notice of  
12           the Commission's Hearings on Cameco's application  
13           for renewal of its operating licence has been  
14           published on the CNSC website, in accordance with  
15           the Commission's Rules of Procedure.

16                           Cameco has given separate notice  
17           of its application and the public's opportunity to  
18           make presentations at the Commission's hearings by  
19           means of a letter and a presentation to the town of  
20           Blind River and the Mississauga First Nation Band.  
21           CNSC staff consider Cameco's program to communicate  
22           with the public to be acceptable.

23                           Changes to the licence: The  
24           proposed licence contains several changes from the  
25           current one. These comprise a condition to require

1 a corporate quality assurance program to complement  
2 the site quality assurance program; five conditions  
3 concerning fire safety and one requiring an annual  
4 compliance report for the facility.

5 Also, the limits for uranium  
6 emissions to the environment have been reduced and  
7 "daily" Action Levels for emissions to the  
8 atmosphere, which relate to the emissions from each  
9 source measured on a daily basis, have been added  
10 to the existing Action Level for weekly  
11 measurements.

12 Licence term: Cameco requested in  
13 its application that the term of the licence be  
14 extended from two to five years.

15 CNSC staff believes that a five-  
16 year term should be considered for the reasons set  
17 out in the CMD. These may be summarized as  
18 follows:

19 The hazards associated with the  
20 activities to be carried on are well known. In  
21 CNSC staff's opinion, Cameco has put appropriate  
22 precautions in place to control the risks and the  
23 results from the internal control programs  
24 demonstrate the effectiveness of those measures and  
25 Cameco's performance. There are no known reasons

1           which will militate against a longer term for the  
2           licence.

3                           CNSC staff conclusions:

4                           CNSC staff concludes that:

5                           (a) Cameco is qualified to carry  
6           on the activities that the proposed licence will  
7           authorize;

8                           (b) Cameco has made, in relation  
9           to the activities to be authorized, adequate  
10          provision for the protection of the environment,  
11          the health and safety of persons and the  
12          maintenance of national security and measures  
13          required to implement international obligations to  
14          which Canada has agreed; and

15                          (c) taking account of the measures  
16          and programs which Cameco has committed to  
17          implement to control the facility hazards, the  
18          risks posed by the operation of the facility to the  
19          environment, the health and safety of persons and  
20          to national security are not unreasonable.

21                          CNSC staff recommendations:

22                          CNSC staff recommends that the  
23          Commission:

24                          (a) accept CNSC staff's assessment  
25          that the applicant is qualified to carry on the

1 activities that the licence will authorize and  
2 will, in relation to those activities, make  
3 adequate provision for the protection of the  
4 environment, the health and safety of persons and  
5 the maintenance of national security and measures  
6 required to implement international obligations to  
7 which Canada has agreed;

8 (b) accept CNSC staff's assessment  
9 that pursuant to section 3 of the Exclusion List  
10 Regulations and section 2 of Part I of Schedule I  
11 of those regulations, that an environmental  
12 assessment pursuant to the Canadian Environmental  
13 Assessment Act is not required; and

14 (c) consider issuing the proposed  
15 Operating Licence FFOL-3632.0/2007, for a period of  
16 five years.

17 Thank you, Madam Chair.

18 THE CHAIRPERSON: Thank you. The  
19 floor is now open for questions.

20 Ms MacLachlan.

21 MEMBER MacLACHLAN: Thank you. I  
22 refer to page 2 of 01-H31.1, Cameco's submission  
23 and the discussion about the employees that work at  
24 the Blind River Refinery.

25 Cameco has a laudable track

1 record, especially in northern Saskatchewan, of  
2 involving and enhancing the capacity of aboriginal  
3 people to participate in their operations. Has  
4 Cameco undertaken any such activities in relation  
5 to the Blind River Refinery?

6 You have talked about consultation  
7 with the adjacent First Nation.

8 MR. STEANE: We do maintain close  
9 relationship with the Mississauga First Nation. A  
10 number of those people do work with us.

11 Katherine Green can talk a little  
12 more about our interaction with them.

13 MS GREEN: We have both a number  
14 of employees that come from the Mississauga First  
15 Nation, as well as maintaining regular contact with  
16 the community.

17 MEMBER MacLACHLAN: Do you have  
18 any specific training programs in the same vein  
19 that the company has in northern Saskatchewan?

20 MS GREEN: We don't have what I  
21 think you would consider to be a formal initiative,  
22 other than we maintain a complement of employees  
23 who are from the community.

24 MEMBER MacLACHLAN: Approximately  
25 how many?

1 MS GREEN: Of the 95 there would  
2 be eight positions. The relative size of the  
3 community is about 400 compared to 4,000.

4 MEMBER MacLACHLAN: Thank you.

5 You mentioned in your presentation  
6 that certification for ISO 14000 had been obtained  
7 for the Port Hope facility. In the written  
8 submission you said that you expected that  
9 certification would be received for Blind River in  
10 October 2001. It is now November.

11 Would you care to comment on your  
12 progress with respect to achieving that  
13 certification?

14 MR. STEANE: Yes. It would be a  
15 pleasure.

16 The registration audit for  
17 ISO 14001 for Blind River was done October 22nd to  
18 25th. There were five minor findings. We are  
19 addressing those five minor findings, and then  
20 registration will proceed.

21 Between the Registrar and us,  
22 there is nothing between us and the registration  
23 once we address those five minor findings.

24 MEMBER MacLACHLAN: I have other  
25 questions, but perhaps I could ask one more now.

1                   This follows up on the internal  
2 dosimetry program that we discussed earlier with  
3 Zircatec.

4                   On page 9 of CNSC staff submission  
5 01-H31 the extension for compliance with the  
6 Radiation Protection Regulations has been extended  
7 to the same deadline as Zircatec. But to me -- and  
8 I would like staff to comment on it -- my  
9 observation here or my understanding of what I read  
10 here is not necessarily that there is an issue with  
11 methodology, but that it is a matter of waiting for  
12 new equipment for a more sensitive lung counter.

13                   Could staff please clarify this  
14 and the rationale in terms of the approaches by the  
15 two different companies?

16                   MR. PEREIRA: I will ask Mr. White  
17 to comment.

18                   MR. WHITE: At the time we  
19 prepared and submitted the CMD for the extension of  
20 the exemption from the internal dosimetry  
21 requirements of the new regulations, this was in  
22 the early spring at a time when the method using  
23 the lung counter, as proposed by Cameco, had only  
24 just been -- I wouldn't use the word certified, but  
25 endorsed by the CNSC's expert working group on this

1           topic.

2                            Cameco foresaw at that time a  
3           period of up to two years to acquire and make  
4           operational this new system and to have confidence  
5           in its results.

6                            Perhaps Cameco's representatives  
7           could speak further on this topic after I have  
8           closed.

9                            At that point the Zircatec  
10          proposal was still in development separately, and  
11          it wasn't decided at that time whether they would  
12          avail themselves of the system that Cameco are  
13          developing -- which they have made use of the  
14          present lung counter system -- or whether they  
15          would develop their own approach based on the  
16          urinalysis results.

17                           They subsequently decided to go  
18          the urinalysis based approach, which can be  
19          developed and brought into operation earlier than  
20          the new equipment at Cameco.

21                           The date was set in CMD 01-M35  
22          with Cameco's needs in mind. As I said, at that  
23          time it wasn't clear whether Zircatec would be  
24          using that system either. We didn't separate for  
25          the different licensees as to the date of

1 application.

2 MEMBER MacLACHLAN: Thank you for  
3 that historical background. I would also like some  
4 comment on the efficacy of each of the proposed  
5 methodologies.

6 MR. PEREIRA: I will ask  
7 Dr. Measures to provide the information requested.

8 DR. MEASURES: For the record, my  
9 name is Mary Measures. I am the Director of  
10 Radiation Environmental Protection Division of the  
11 CNSC.

12 You get a better measurement if  
13 you do a thorax count, although you have to be  
14 clear. It is a bit complicated in that you are not  
15 just counting what is in the lung; you are also  
16 counting what is in the bone of the ribs. So it  
17 becomes a bit complicated.

18 But it is easier to do the direct  
19 measurement and convert that to a dose.

20 It is much less expensive to do a  
21 urinalysis measurement and more complicated, in  
22 that you have to develop a more complicated  
23 metabolic model to relate from the urine  
24 concentrations. There are so many things, like how  
25 much you have drunk that day, et cetera, that

1           affect that calculation.

2                           There are two different ways of  
3           doing it. Theoretically, one should be as good as  
4           the other. But you have to do some testing.

5                           THE CHAIRPERSON: Does the  
6           licensee wish to comment?

7                           MR. JARRELL: I could add a couple  
8           of points.

9                           I guess the reason we picked lung  
10          counting was obviously 20 years' experience with  
11          it. So that is certainly something we are familiar  
12          with.

13                           We would agree there is potential  
14          of using very low level urinalysis results as well.

15                           Whatever system used, the one we  
16          picked probably the most difficulty for us is  
17          different solubility classes. It is sort of  
18          divided into three types: fast, medium and slow  
19          type of response. So there is the issue of the  
20          actual solubility of the material.

21                           In our case, because we deal with  
22          multi products, that is probably why we leaned a  
23          bit toward lung counting as well, because we have  
24          much more different chemical forms of uranium than  
25          Zircatec does, for example.

1                   There is the issue of the  
2                   individual shape of the body. That's why we came  
3                   up with this somewhat complicated method of group  
4                   lung counting of similar groups.

5                   What we find in this thing is that  
6                   when you first take a look at an individual -- of  
7                   course you are dealing with very low signals. When  
8                   you first look at an individual, there are any  
9                   possible number of scenarios as to how they got an  
10                  uptake, whether it was acute or chronic, and so on  
11                  and so forth.

12                  Whatever system you use, as you  
13                  keep monitoring that individual over time, you can  
14                  start ruling out some of those variabilities. So  
15                  you actually become more accurate as time goes on.

16                  What we have proposed is a system  
17                  that is based on this enhanced lung counting. This  
18                  one is a bit more discriminating for a particular  
19                  radionuclide. We think we can patch together a  
20                  pretty confident estimate of what that dose is to  
21                  that individual, given these multi-product sites  
22                  and the variety of people.

23                  That's the way we have picked.

24                  The reason we asked for an  
25                  extension of the transition period was basically to

1 buy this new equipment, to get it commissioned and  
2 to make sure the system is fully functional.

3 THE CHAIRPERSON: Dr. Giroux.

4 MEMBER GIROUX: Thank you.

5 I would begin by addressing a  
6 general comment to Cameco, if I may, on the  
7 presentation. This applies to this and to the Port  
8 Hope presentation.

9 I find the text very well written  
10 but lacking in illustrations. You referred to the  
11 physical and geographical layout of the plant and  
12 different plants, and I could figure out what you  
13 were talking about from previous presentations that  
14 I heard here. But as we sit in our homes and read  
15 these, it is difficult to understand exactly what  
16 you are talking about. And we have, of course, the  
17 presentation of today.

18 Maybe you might provide a few more  
19 illustrations of what you are talking about. Thank  
20 you for accepting that remark.

21 That being said, you argue -- and  
22 I am talking to Cameco again. You argue that your  
23 employees are -- you have a very good safety record  
24 and what you said about the years of lost time  
25 accident is remarkable.

1                   You argue that you have a  
2                   close-knit community or group of employees and that  
3                   they are highly motivated. The question I have is:  
4                   In a stable operation such as you have, and in a  
5                   fairly small community -- Ms Green just mentioned  
6                   about 4,000 people -- how do you maintain the  
7                   motivation of employees?

8                   Is there innovation? Is there  
9                   training? Do you have a special approach to  
10                  maintain at all time the same degree of interest in  
11                  the work and the same quality of work?

12                  MR. STEANE: I will turn that to  
13                  Katherine Green, the Manager of Blind River.

14                  MS GREEN: Katherine Green,  
15                  Manager of Blind River operations.

16                  It is a challenge. It takes a  
17                  great deal of creativity. We combine a number of  
18                  formal programs, as well as informal opportunities  
19                  to show recognition and to acknowledge employee  
20                  performance.

21                  One of the programs that we have  
22                  in place that we continue to reinforce is one  
23                  called Take Two, which is basically an employee  
24                  self-assessment before completing a task; as well  
25                  as the training programs for which we try to focus

1 on practical applications, and safety related  
2 training that is focused on the employee's actual  
3 tasks.

4 MEMBER GIROUX: Are you involving  
5 your union in these strategies?

6 MS GREEN: We are a non-unionized  
7 operation. The contract security forces is  
8 unionized, but the site direct Cameco employees are  
9 not.

10 MEMBER GIROUX: Thank you. I have  
11 questions for staff now, if I may.

12 Concerning emergency measures --  
13 actually, Cameco could answer also. I am assuming  
14 that Cameco is responsible for on-site emergency  
15 measures. Is there an interface with Emergency  
16 Measures Ontario for off-site emergencies? And is  
17 there a satisfactory plan in place?

18 MR. PEREIRA: I will invite  
19 Mr. White to respond to the question.

20 MR. WHITE: To the best of my  
21 knowledge, Dr. Giroux, Emergency Measures Ontario  
22 has not taken a great interest in nuclear  
23 facilities, other than those at the power reactor  
24 sites and Zircotec and Port Hope, because from time  
25 to time it does process or have on-site some

1 enriched uranium.

2 They have been more concerned with  
3 the types of facilities covered under the Nuclear  
4 Liability Act.

5 Emergency Measures Ontario I don't  
6 think has paid particular attention or a great deal  
7 of attention to what may be referred to as the  
8 Cameco type plants, whether nuclear or  
9 petrochemical of that nature.

10 Perhaps Cameco representatives  
11 might have some other information to offer on this.

12 MR. STEANE: We have, both at  
13 Blind River and Port Hope, not direct links with  
14 Emergency Measures Ontario, although we do  
15 communicate with them.

16 Emergency Measures Ontario are  
17 linked through the community, and we have direct  
18 links and formalized systems for emergency handling  
19 through the community emergency response. Then the  
20 communities of Port Hope or Blind River can then  
21 take that up through the procedures and protocols  
22 of Emergency Measures Ontario.

23 MEMBER GIROUX: Do I understand  
24 correctly that, in principle at least, Emergency  
25 Measures Ontario is responsible for all emergencies

1 in the province, for off-site emergencies, even  
2 with chemical plants which are nothing to do with  
3 nuclear operations?

4 MR. PEREIRA: Mr. Howden can offer  
5 some additional comments.

6 MR. HOWDEN: Just to step back on  
7 the provincial nuclear plan for a moment, it is set  
8 up with a series of sections that are site-specific  
9 to the various power reactor sites and Chalk River.  
10 They also have a generic section that applies to  
11 sort of the "everything else" category, which they  
12 would apply to a Blind River type event. So they  
13 would use the existing structure, obviously having  
14 to link in with the local municipality.

15 But you are correct, the off-site  
16 measures do fall under Emergency Measures Ontario,  
17 and the linkages I think would be through the town  
18 of Blind River.

19 MEMBER GIROUX: Mr. White's  
20 assessment stands, that they don't seem to be  
21 paying much attention to this sort of operation.

22 MR. WHITE: That is my  
23 understanding, Dr. Giroux. My knowledge is a  
24 little out of date. At one stage I was a member of  
25 an organization called The Major Industrial

1 Accidents Council of Canada, which was a tripartite  
2 organization, with federal-provincial  
3 representation, plus industrial, various trade  
4 associations.

5 Emergency Measures Ontario did  
6 participate in that organization, but regrettably  
7 it disappeared about two years ago. I am not sure  
8 whether any other organization has been established  
9 to take over the role that it was trying to  
10 accomplish.

11 THE CHAIRPERSON: Perhaps what I  
12 could suggest with regard to this item, that this  
13 could be further investigated. If we could have a  
14 more delineated and elaborated report, please, on  
15 Day Two of this hearing, that may be more helpful  
16 than us continuing to speculate with regard to  
17 this.

18 I think we have the gist of it,  
19 but we should have some more details.

20 Dr. Giroux?

21 MEMBER GIROUX: Just one final  
22 question along a different line. This is again to  
23 staff.

24 You make a recommendation,  
25 actually a condition in the licence, a fourth

1           condition: that the maximum discharge of uranium to  
2           the atmosphere should be changed from an  
3           observation period of one year to one hour, if I  
4           read correctly.

5                           I was wondering about the  
6           motivation for that. It seems a very much more  
7           nervous system observation.

8                           MR. PEREIRA: Ken Pereira here.

9                           I think the purpose of the change  
10          was to enable more ready monitoring of compliance  
11          with the requirement, so that when we carry out  
12          inspections and Cameco reports, it is reporting on  
13          a different basis. So it makes tracking of  
14          compliance much easier.

15                           That is the purpose: to enable  
16          better tracking of compliance with requirements.

17                           MEMBER GIROUX: Isn't that also  
18          very much more demanding? Instead of observing for  
19          one year, you are observing for one hour.

20                           I am not sure I understand exactly  
21          the implications. That is why I am asking the  
22          questions. Maybe Cameco has comments on this.

23                           According to staff, is that more  
24          stringent or not?

25                           MR. PEREIRA: I will ask Mr. White

1 to comment further.

2 MR. WHITE: The change, as  
3 Mr. Pereira has explained, was done for the purpose  
4 of making compliance surveillance simpler and more  
5 precise.

6 But to put the situation in  
7 perspective, the limit based, as we discussed this  
8 morning in relation to Zircatec, on one  
9 milliSievert per year exposure radiation dose a  
10 member of the public is back calculated to the  
11 derived release limit of 5,200 grams an hour or 5.2  
12 kilograms an hour.

13 The actual emissions are running  
14 much lower than that, and this is indicated by the  
15 fact that the action levels which have been  
16 incorporated into the licence for the three main  
17 sources of uranium emissions are set at  
18 progressively, for the first stack, at 40 grams an  
19 hour, the second at 25 grams an hour, and the third  
20 at 5 grams an hour.

21 So the ability of the plant to  
22 limit the emissions to levels much lower than the  
23 derived release limit is evident from these action  
24 level numbers.

25 MEMBER GIROUX: Would Cameco have

1           comments on this?

2                           MR. STEANE: I think your  
3           observation is correct. If you go from an annual  
4           averaging period to an hourly averaging period,  
5           that is much more demanding.

6                           But I think Mr. White's comments  
7           also are true; that our emissions relative to the  
8           limit, that is not a new onerous requirement on our  
9           refinery.

10                          THE CHAIRPERSON: Dr. Barnes.

11                          MEMBER BARNES: I will follow up  
12           on a couple of points.

13                          It is interesting to note the  
14           kinds of presentations we have from Cameco here  
15           compared to say Cameco's presentations on uranium  
16           mines which was brought before us quite recently;  
17           so on two issues that are slightly comparative.

18                          Certainly Cameco before indicated  
19           a reasonable degree of proactive nature in  
20           employment of First Nations in dealing with uranium  
21           mines.

22                          Just as a follow-up to  
23           Ms MacLachlan's comments, would you say the company  
24           is equally as proactive in dealing with the First  
25           Nations community from the employment viewpoint in

1           this Blind River facility?

2                         MR. MICHEL:  Madam Chair, if I may  
3           address this question.  I think the answer lies in  
4           the proportion of aboriginal people to the rest of  
5           the population.

6                         If one looks at Northern  
7           Saskatchewan, at least 80 per cent of the  
8           population is of aboriginal ancestry, and about 50  
9           per cent of our employees are aboriginal.  If we  
10          look at the context within which you find Blind  
11          River, as Catherine Green mentioned earlier, about  
12          10 per cent of the population is of aboriginal  
13          ancestry and this is about the number of people  
14          proportionally we have in our workforce.

15                        MEMBER BARNES:  Okay.  The second  
16          point I wanted to touch on was more environmental  
17          and relates to the statistics and information you  
18          have given on the derived limits, and so on, of  
19          DRLs which are really based on the public dose, but  
20          reall we are looking for the protection of the  
21          environnement, and so on, in a widely dispersed  
22          population relatively here.

23                        It seems to me that, although it  
24          is not a serious threat to the public, the  
25          information that is given in the document to the

1 environment is not well documented in the same way,  
2 for example, it was in dealing with some of the  
3 uranium mines.

4 So if I look, for example, for  
5 information on analysis of the biota there is  
6 reference to soil sampling campaigns or sampling of  
7 vegetation, but there is almost no actual data  
8 given in here compared, again, to the uranium mines  
9 where some really specific data would be given to  
10 convince us that it really wasn't a problem.

11 We have releases into the lake,  
12 for example, and although the total amounts that  
13 are being released for uranium, there is not much  
14 information given on the other effluent or the PH  
15 factors, and so on, on the other aspects of the  
16 biota. So there is no mention, for example, of  
17 analysis of fish, if that is relevant. Perhaps  
18 it's not relevant, but I am just making a  
19 comparison here. There is a lot of talk of these,  
20 but without very much data.

21 There is information on the air  
22 analyses, but there are just four points in which  
23 air is measured basically at the perimeter and off  
24 site in a very large area.

25 So again, I wonder if four places

1           analyzing that is sufficient and there are just six  
2           for groundwater, again in a large area.

3                         So could perhaps first address  
4           whether the sampling points are adequate and  
5           whether you really have information that the biota  
6           as opposed to the public dose is affecting -- the  
7           biota is being affected by some of the effluent.

8                         MR. JARRELL: I think you have hit  
9           on one of the essential differences between uranium  
10          mining and these operations.

11                        I certainly hold the view that  
12          uranium mines and mill operations tend to be very  
13          water centric, that an awful lot of the  
14          environmental monitoring program is related around  
15          effluents and the possibility of groundwater  
16          contamination from waste rock in the lake.

17                        In the case of Blind River and  
18          Port Hope, I think it's equally fair to say that  
19          the main priority is airborne emissions probably  
20          because most of those processes are dry and  
21          therefore, for example, at Blind River there is a  
22          cooling tower system so you have sort of fairly  
23          limited amount of effluent discharge.

24                        The same in Port Hope. What you  
25          have is basically a cooling system with very

1           llimited process effluent. So the focus tends to  
2           be on the air emission and it would probably be  
3           fair to say also there is not as well a developed  
4           program on air emission programs from an  
5           environemental monitoring perspective as there is  
6           for sort of the aquatic environement.

7                           What people are focussing on now  
8           tends to be the possible accumulation of uranium in  
9           soil. That seems to be the prime driver of these  
10          things and that's why we have embarked over the  
11          last four or five years on these types of programs,  
12          to try and determine if there is some sort of  
13          uranium accumulation to the soil in close vicinity  
14          to that facility.

15                           That coupled with dust fall  
16          measurements which we use at Port Hope as well as  
17          these high volume particular samplers sort of give  
18          you a sense of that, but as far as sort of effects  
19          on the territrial environement, the only one of  
20          real substance, I would say, in Port Hope is on  
21          fluoride emissions. But other than that I would  
22          say it's very much focussed on uranium dust  
23          emissions.

24                           MEMBER BARNES: Regarding the  
25          airborne emissions, which you calculated, if I

1 recall, at 35 kilograms a year. Is there a way in  
2 which that could be significantly reduced or you  
3 think not?

4 MR. JARRELL: I think it's fair to  
5 say we continually have tried to reduce that. I  
6 think you can see over a longer period of time some  
7 fairly significant reductions. We always seek  
8 opportunities to reduce it, but I think to a large  
9 extent it's a function, for example, of the  
10 efficiency of bag houses. It's sort of a common  
11 element, particularly for a plant like Blind River.

12 MEMBER BARNES: And could I ask  
13 staff for just a comment? Do you think that if  
14 airborne emissions are the principal environmental  
15 concern that four monitoring points is adequate?

16 MR. PEREIRA: I will invite  
17 Dr. Thompson to comment on that point.

18 MS THOMPSON: To address the  
19 atmospheric deposition side, the CNSC staff have  
20 reviewed and evaluated the environmental monitoring  
21 programs for Port Hope and Blind River refineries.  
22 The programs were found to be designed to be able  
23 to provide information on the dispersion of  
24 contaminants coming out from the stacks and  
25 reasonable measures of concentrations in the air.

1                   There are some recommendations  
2           about possibly moving one of the monitors so that  
3           it would be located in areas where -- that's the  
4           case for Port Hope not for Blind River -- the  
5           predicted higher deposition rates would be  
6           expected.

7                   In the case of Blind River, we  
8           haven't done a formal evaluation, but we have  
9           reviewed the program and it appears to be adequate  
10          for the purposes for which it was intended which is  
11          partly historical. It was intended to demonstrated  
12          the wishes of the members of the public were being  
13          met in ALARA. CNSC staff, since the new  
14          regulations and the new act came into force, are in  
15          a process of developing guidance to Class 1  
16          facility licensees on further development of  
17          environmental monitoring programs to meet all the  
18          requirements of the new act and regulations.

19                   So we expect in the future to have  
20          some modifications of environemntal monitoring  
21          programs where there are potential environmental  
22          issues.

23                   That being said, we have reviewed  
24          potential environemntal impacts from the Blind  
25          River refinery from the atmospheric deposition.

1           The work done by us as well as by MOE have shown  
2           that accumulation in soils and potential impacts on  
3           terrestrial plants is a more sensitive endpoint  
4           than would be members of the public, but the  
5           information we have is that with the accumulation  
6           rates that we have observed over the last 14 years  
7           of operation have not resulted in accumulation in  
8           soils to levels that would be toxic to plants. We  
9           don't expect that accumulation to happen over the  
10          next 50 or 60 years of operation.

11                           THE CHAIRPERSON: Mr. Graham.

12                           MEMBER GRAHAM: Thank you.

13                           I had the same series of questions  
14          that Dr. Barnes had with regard to the levels of  
15          uranium in the soil and on page 13 it indicated  
16          that the uranium in soil levels were slightly above  
17          baselines.

18                           We have been talking about soils  
19          and I am wondering, has there been any -- and this  
20          is to CNSC staff -- sampling of aquatic life around  
21          there also where it is quite close to the lake and  
22          the river?

23                           MR. PEREIRA: I will invite  
24          Dr. Thompson to respond.

25                           MS THOMPSON: That's one of the

1 main differences between the monitoring programs  
2 conducted for a Class 1 facilities in comparison to  
3 uranium mines and mills, for example.

4 In the case of refineries, the  
5 sampling program has been focussed on demonstrating  
6 compliance with the public dose limit. So to my  
7 knowledge, there is not recent information --  
8 recent environmental monitoring information for  
9 the aquatic side that would demonstrate the  
10 releases have not had an impact on receiving  
11 environment biota, on fish and benthic  
12 invertebrates, for example.

13 There is information on the  
14 quality of the effluent that demonstrates that the  
15 effluent is not toxic, but we know from other types  
16 of activities that having an effluent that is not  
17 toxic doesn't necessarily mean that there is no  
18 impact on the receiving environment. But that's  
19 one of the things that we are providing developing  
20 guidance for, guidance to licensees to develop  
21 those programs for licensees that don't have them  
22 yet and where there is the information from their  
23 facility demonstrates that they would need to have  
24 those programs in place.

25 MEMBER GRAHAM: Will that be one

1 of the -- I shouldn't say "will", but could that be  
2 one of the licensing conditions, that there be more  
3 data especially that aquatic data be obtained?

4 MR. PEREIRA: We would have to  
5 define our requirements first before placing a  
6 condition on the licence.

7 MEMBER GRAHAM: I will pursue that  
8 on Day 2.

9 The only other question I have is  
10 with regard to decommissioning. What is the  
11 decommissioning program for this facility and how  
12 much securities are in place for that?

13 MR. PEREIRA: We have received a  
14 submission which has been reviewed. I will ask  
15 Mr. White to provide more details on what the  
16 submission covered.

17 MR. WHITE: The same situation  
18 applies in the case of Cameco Blind River facility,  
19 Mr. Graham, as we discussed this morning in  
20 relation to the Zircatec facility.

21 The company has submitted its  
22 preliminary plan. We have found some problems with  
23 it in terms of need for additional information.  
24 The company is working to supply that information  
25 to us and we intend to meet with them in early

1 December to find out what progress is being made.

2 On the basis of that, we will then  
3 decide whether there are suitable grounds for  
4 establishing the financial guarantee and what plans  
5 the company has in that regard. Otherwise, as  
6 indicated in my presentation, we will be proposing  
7 the condition in the licence at the January 17th  
8 Day 2 Hearing to address this issue.

9 MEMBER GRAHAM: It's not in the  
10 conditiosn as such now that is drawn up, but this  
11 would be added to before Day 2. Is that what you  
12 are saying?

13 MR. PEREIRA: That is the correct  
14 point at this time, yes.

15 THE CHAIRPERSON: If I may? Just  
16 going back to Mr. Graham's earlier question with  
17 regards to aquatic life impact. One of the things  
18 we would like to have, perhaps by Day 2, is a sense  
19 of whether the requirements, the guidelines or  
20 requirements or regulations for that aspect which,  
21 as I understand, are not required now, whether that  
22 would change within a five-year period or what  
23 period would there be expected change in those  
24 requirements.

25 If a licence was given for a

1 longer period of time, how exactly would that be  
2 inputted and changed if there was a change at that  
3 point. Is that clear or...?

4 MR. PEREIRA: We will address it  
5 in Day 2.

6 Dr. Barnes, would you like to add  
7 to that?

8 MEMBER BARNES: But I think under  
9 the new act it is now required. Is that right?

10 THE CHAIRPERSON: But I think we  
11 don't have guidelines.

12 MEMBER BARNES: But to the  
13 environment as opposed to the public.

14 THE CHAIRPERSON: Yes. I think  
15 the issue is that there aren't guidelines or  
16 regulations in place so it's not possible to hold  
17 licensees accountable for something that we don't  
18 have any standards for.

19 So would that be likely, and if it  
20 happened during any licensing period, be that two  
21 years or longer, how exactly would that be  
22 implemented might be helpful.

23 MR. PEREIRA: We will address that  
24 in the Day 2 presentation.

25 THE CHAIRPERSON: Thank you very

1 much.

2 Ms MacLachlan.

3 MEMBER MacLACHLAN: Thank you.

4 I have two questions related to  
5 CMD 01-H31. On page 12, the statement is made by  
6 CNSC staff, but I think this is a question for the  
7 applicant. It has to do with the statement that:  
8 "Contaminated non-combustible waste that cannot be  
9 recycled is minimal and it is stored on site in  
10 drums until disposal".

11 My question is: What is the  
12 nature of this contaminated non-combustible waste?  
13 Can you tell me a little bit about its safety and  
14 security until such time as it can be permanently  
15 disposed of while it is in your care and  
16 protection?

17 MR. STEANE: Yes. I will get  
18 Catherine Green to talk to that in detail.

19 MEMBER MacLACHLAN: Thank you.

20 MS GREEN: Catherine Green, the  
21 Manager of Blind River Operations.

22 This is generally very stable  
23 material. It would be things like small  
24 components, perhaps a section of valve, perhaps  
25 contaminated concrete from refurbishing of

1 equipment, and it's generally contaminated to the  
2 level that it's not possible to give it  
3 unrestricted release, but that it is quite stable,  
4 solid materials.

5 MEMBER MacLACHLAN: My last  
6 question I think requires comment from both staff  
7 and the applicant. It's on page 17 and it's the  
8 saga of these dueling consultants with respect to  
9 fire safety.

10 Perhaps you could provide us with  
11 some background on this issue.

12 --- Pause

13 THE CHAIRPERSON: Licensee,  
14 please.

15 MR. STEANE: Licensee, I am sorry.

16 MEMBER MacLACHLAN: Clearly you  
17 each have consultants that do not see eye to eye  
18 and maybe you could identify for us what those  
19 issues are and what the anticipated resolution of  
20 those issues will be.

21 MR. STEANE: I guess I am not  
22 understanding. I don't think that we have -- my  
23 undersdtanding is we don't have duelling  
24 consultants. I think CNSC staff had a consultant  
25 who was engaged and did a review of the site. We

1           have also engaged consultants and I don't think  
2           they are at issue with each other. It's just  
3           looking at the aspects of fire safety from  
4           differing views and differing levels of detail, and  
5           we are going down the path and the CNSC's staff  
6           consultant's report gave us sort kind of a starting  
7           platform and engaged our own consultants plus our  
8           insurance people and are going forward.

9                                So I don't think we have a  
10           conflict of duelling consultants.

11                           MEMBER MacLACHLAN: Okay. I would  
12           like to hear -- this is the CMD from staff so  
13           perhaps they have a different perspective or the  
14           same perspective, but I would like to hear it.

15                           MR. PEREIRA: I would invite  
16           Mr. Jaferi to provide some comments.

17                           MR. JAFERI: Thank you, Ken. This  
18           is Jafir Jaferi again, Project Officer for Blind  
19           River Facility.

20                           The reason why there are two  
21           consultants is first the CNSC consultant didn't go  
22           over all the detailed measures and that report  
23           actually suggested to CNSC that you should ask the  
24           licensee to have a consultant to go over it  
25           thoroughly and see if the findings from teh CNSC

1 consultants are right or wrong, and at the same  
2 time see if there are some areas the CNSC  
3 consultant has missed so they should pick it up.

4 So that was the reason and we  
5 agreed that yes, Cameco should have their own  
6 consultant to take a look at the entire facility  
7 and come up with their own recommendations. If  
8 they are different than ours then we can see which  
9 ones should be also included to correct it.

10 MEMBER MacLACHLAN: And I gathered  
11 from this write up that the issues have not all  
12 been resolved yet.

13 MR. JAFERI: It's almost like  
14 80 per cent resolved at Blind River. There are  
15 only a few things left which are minor, they are  
16 not major. Our CNSC fire safety specialist will be  
17 going there to make a final inspection of elevation  
18 to close those outstanding issues. But the  
19 majority of the findings have been corrected.

20 MEMBER MacLACHLAN: We will have a  
21 report on that for Day 2, will we?

22 MR. JAFERI: Yes, we would get  
23 that report.

24 MEMBER MacLACHLAN: Thank you.

25 THE CHAIRPERSON: Thank you. I

1 would like to just make a comment and a question, I  
2 guess, to staff.

3 When we make a recommendation for  
4 a five-year licence, and we are looking at being  
5 consistent. I think that's an important quality  
6 for the Commission, and we have a number of  
7 applications before us. When you look at the new  
8 conditions on changes to the licence and you look  
9 at issues, as Ms MacLachlan has mentioned, fire  
10 safety and understanding whether the conditions  
11 that haven't been met yet to what degree are they  
12 serious impediments to the granting of a licence  
13 period or a longer licence for sure -- the same  
14 thing with corporate quality assurance.

15 There have been recommendations in  
16 the past with regards to the need for a corporate  
17 quality assurance program and if it's not in place  
18 what does that mean in terms of importance to the  
19 granting of the licence. We heard about the  
20 decommissioning and financial assurances in  
21 response to the question from Mr. Graham.

22 I guess I would like some  
23 tightening up before Day 2 with regards to exactly  
24 what are we talking about here. It is almost like  
25 my earlier question to the former at the previous

1 hearing. What is expected to change within five  
2 years? What is the forecast for this? What would  
3 be the issues here that could be resolved? How  
4 could they be handled if a five-year licence was  
5 granted? What are the reporting possibilities  
6 during that period of time?

7 I guess I would just like that  
8 tightened up and since we are talking about a  
9 number of herings, I think we need to know what we  
10 are talking about here. I think this is an  
11 important consideration and I think we need to have  
12 that material before us to understand the risk of  
13 these various conditions, plus in order to be  
14 consistent I think we need that information. Is  
15 that fine?

16 MR. PEREIRA: Certainly, Madam  
17 Chair, we can address that in our presentation on  
18 Day 2.

19 THE CHAIRPERSON: Okay. Thank you  
20 very much.

21 That therefore brings to the end  
22 the question period for this hearing. This hearing  
23 will continue on the 17th of January, 2002 here in  
24 the CNSC offices.

25 According to the Commission's

1 rules of procedure, rule 18-3, the applicant is  
2 required to be present at that date. Commission  
3 staff also are required to be present. The public  
4 is invited to participate either by oral  
5 presentation or written submission on Hearing  
6 Day 2.

7 Persons who wish to intervene must  
8 file submissions by December 14th, 2001. The  
9 hearing is now adjourned until January 17th, 2002.

10 Because of the lateness of the  
11 hour we will take a five-minute break and we will  
12 resume with the next hearing.

13 Thank you.

14 --- Upon recessing at 2:55 p.m.