

**Canadian Nuclear  
Safety Commission**

**Commission canadienne de  
sûreté nucléaire**

**Public Meeting**

**Réunion publique**

**April 26, 2006**

**Le 26 avril 2006**

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

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

**Commission Members present**

**Commissaires présents**

Mr. Alan R. Graham  
Dr. Christopher R. Barnes  
Dr. Moyra McDill  
Dr. James Dosman

M. Alan R. Graham  
Dr. Christopher R. Barnes  
Dr. Moyra McDill  
Dr. James Dosman

**Secretary:** Mr. Marc A. Leblanc

**Secrétaire:** M. Marc A. Leblanc

**General Counsel :** Jacques Lavoie

**Conseil général :** Jacques Lavoie

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Ottawa, Ontario

1  
2  
3 --- Upon commencing on Wednesday, April 26, 2006  
4 at 3:02 p.m.

5 **06-M1**

6 **Opening Remarks**

7 **MR. LEBLANC:** Bon après-midi, mesdames et  
8 messieurs. Bienvenu à la Commission canadienne de sûreté  
9 nucléaire.

10 Mon nom est Marc Leblanc. Je suis  
11 secrétaire de la Commission et j'aimerais aborder  
12 certains aspects touchant le déroulement de cette réunion.

13 We have simultaneous translation. If you  
14 would, please keep the pace of speech relatively slow so  
15 the translators have a chance of keeping up. Des  
16 appareils de traduction sont disponibles à la réception.  
17 La version française est au poste 8 and the English  
18 version is on Channel 7.

19 Please identify yourselves clearly before  
20 speaking so that the transcripts are as complete and clear  
21 as possible.

22 Les transcriptions seront disponibles sur  
23 le site web de la Commission la semaine prochaine.

24 Please silence your cell phones.

1                   Monsieur Graham présidera la réunion  
2 publique d'aujourd'hui.

3                   Mr. Chair.

4                   **THE CHAIRPERSON:** Thank you very much and  
5 good afternoon. Welcome to a meeting of the Canadian  
6 Nuclear Safety Commission.

7                   I also wish to welcome the participants  
8 that are joining us via videoconferencing in Saskatoon.

9                   I am Alan Graham and I will preside this  
10 meeting in the absence of Linda Keen, who is unfortunately  
11 unable to be with us today.

12                  I would like to introduce the Members of  
13 the Commission that here today. On my right, I would  
14 start with Dr. Moyra McDill and Dr. Barnes and on my left,  
15 Dr. Dosman. In addition to Mr. Leblanc, the Secretary of  
16 the Commission, Mr. Jacques Lavoie, General Counsel to the  
17 Commission is also with us today.

18                  The Commission is still on enhanced  
19 security status, as are many of the facilities which we  
20 regulate and as such, I will, as appropriate, take  
21 measures to ensure that security matters of a sensitive  
22 nature are not discussed in public and we will, if  
23 necessary, move in camera, closed session, at any time for  
24 discussions of security matters.

25                  Before adopting the agenda, I would like to

1 note that one supplementary Commission Member Document, or  
2 CMD, was added to the agenda after its publication on  
3 April 12, 2006.

4 With this information, I would like to call  
5 for the adoption of the agenda by the Commission Members  
6 as outlined in CMD 06-M19.A.

7 Do I have concurrence.

8  
9 **06-M19 / 06-M19.A**

10 **Adoption of Agenda**

11 **THE CHAIRPERSON:** For the record, the  
12 agenda is adopted.

13 **06-M20**

14 **Approval of Minutes**

15 **of Commission Meeting held March 30, 2006**

16 **THE CHAIRPERSON:** I will now call for  
17 approval of the minutes of the Commission meeting on March  
18 30, 2006. The minutes are outlined in Commission Member  
19 Document CMD 06-M20.

20 I note that there are no follow-up updates  
21 from the March 30<sup>th</sup>, 2006 meeting for today.

22 Are there any comments, additions or  
23 deletions that Commission Members wish to make to the  
24 draft minutes?

25 I note that there are no changes.

1           Therefore, I would ask the Commission Members to approve  
2           the adoption of the minutes. Do we have approval?

3           Agreed. Thank you.

4                               We will now move to the Significant  
5           Development Reports as outlined in CMDs 06-M21 and 06-  
6           M21.A.

7                               As the Significant Development Reports are  
8           already in written form, senior CNSC staff will first be  
9           asked if they wish to add anything orally with respect to  
10          each significant development report within their  
11          perspective areas of responsibility, after which Members  
12          will be asked if they have any questions.

13                              We have today four Significant Development  
14          Reports.

15                              I should ask, first of all, is there  
16          anything you wish to add -- that staff wish to add?

17                              **MR. HOWDEN:** To the best of my knowledge,  
18          there are no further SDRs to be added.

19                              **THE CHAIRPERSON:** Thank you.

20                              We have today four Significant Development  
21          Reports which are under the responsibility of Mr. Barclay  
22          Howden, Director General, Directorate of Nuclear Cycle and  
23          Facilities Regulation.

24                              The first one is item 4.1.1. is as follows,  
25          and it's following the update of mine personnel exposure

1 to gases released from underground blasting at Cameco  
2 Cigar Lake Operation. This item was first presented to  
3 the Commission on February 16<sup>th</sup>, 2006.

4 Mr. Howden, any additional comments on this  
5 item?

6  
7 **06-M21**

8 **Significant Development Report No. 2006-3**

9 **MR. HOWDEN:** Thank you, Mr. Chair.

10 No further comments from staff. I would  
11 like to note that Mr. Scissons, the Director of the  
12 Uranium Mines and Mills Division is available in Saskatoon  
13 to assist me in responding to questions.

14 Thank you.

15 **THE CHAIRPERSON:** Any questions or comments  
16 from Commission Members with regard to the SDR on this  
17 item?

18 Dr. Dosman.

19 **MEMBER DOSMAN:** Mr. Chair, I would like to  
20 ask a question concerning the monitoring system for the  
21 fan installations underground and on the other items  
22 listed in the report.

23 I wonder if it would be possible to ask  
24 CNSC staff more detail concerning these fan installations?  
25 Why were they not in place previously and now that they're

1 installed, how are they working and so on?

2 **MR. HOWDEN:** Thank you. Barclay Howden  
3 speaking.

4 I'm going to ask Mr. Kevin Scissons in  
5 Saskatoon to reply to that, Dr. Dosman.

6 **MEMBER DOSMAN:** Thank you.

7 **THE CHAIRPERSON:** Do we have sound, audio  
8 and visual both with Saskatoon?

9 We will just take a moment to rectify this.

10 Also, I should note that Mr. Jarrell is  
11 here today also with us and here to answer questions. If  
12 Mr. Jarrell would like to come up and join us, he may have  
13 some questions he might want to answer also.

14 **(SHORT PAUSE)**

15 **MR. SCISSONS:** Can you hear us now?

16 **THE CHAIRPERSON:** Yes, we can.

17 So, Mr. Scissons, would you like to  
18 proceed?

19 **MR. SCISSONS:** Yes. Good afternoon. Kevin  
20 Scissons, Director of Uranium Mines and Mills Division in  
21 Saskatoon.

22 With me I have the Project Officer, Denis  
23 Schryer, and if I could ask Mr. Schryer to speak to the  
24 specifics of the questions raised by Dr. Dosman.

25 Mr. Schryer.



1                   **MR. SCHRYER:** Denis Schryer for the record.  
2                   Thank you for the question.

3                   There were two fan installations that were  
4                   identified as critical, one as per the Significant  
5                   Development Report, that was the cause or the problematic  
6                   fan on the 500 level is now being monitored at the shaft  
7                   station using a light system, and another installation is  
8                   for radiation protection control is where we're currently  
9                   storing drill cuttings from the diamond drilling  
10                  operation.

11                  Both installations are being monitored at  
12                  the shaft station with the use of lights.

13                  In addition to that, the radiation  
14                  monitoring aspects for the drill cutting system is also  
15                  monitored by a radiation monitoring device.

16                  The 500 level system and others may not  
17                  have been indicated as critical fans until this recent  
18                  incident occurred at the 500 level, and as these  
19                  installations become installed, judgments will be made to  
20                  ensure that the remaining critical fans are monitored.

21                  **MEMBER DOSMAN:** Thank you.

22                  Mr. Jarrell, would you like to add anything  
23                  to this?

24                  **MR. JARRELL:** John Jarrell for the record.  
25                  No, I don't think so. I think probably we

1 look at it in the context of the Swiss construction  
2 activity. So I think in hindsight, obviously, yes, this  
3 was a critical fan and changes were made.

4 I could ask Barry Schmitke if he has any  
5 specific comments to make.

6 **MR. SCHMITKE:** Barry Schmitke for the  
7 record. No real significant comments other than that as  
8 part of the ongoing construction and of course as we move  
9 into operations, we will have suitable networks  
10 underground, such as the fibre optics network, where we  
11 will be connecting all the fans into the overall  
12 monitoring of the health of the ventilation system  
13 underground. Just for clarification.

14 **THE CHAIRPERSON:** Dr. Dosman.

15 **MEMBER DOSMAN:** I'm just wondering, for Mr.  
16 Jarrell or perhaps staff, whether this brings up the  
17 question of adequate training in health and safety  
18 procedures for contractors onsite.

19 **MR. JARRELL:** Yes, John Jarrell, for the  
20 record.

21 Yes, it did. In fact that was certainly  
22 one of the take-aways from the root cause analysis we did,  
23 was the need for additional training of ventilation  
24 officers and verification of that training. So yes,  
25 absolutely that was a key component of the corrective



1 implemented the day that we left the action item from our  
2 inspection on December the 1<sup>st</sup>. The procedure involves a  
3 trained mine rescue person accompanying the ventilation  
4 officer. The procedure is implemented after every blast  
5 is initiated and the mine is cleared in sequence, the  
6 south end first and subsequent to that, the north end.

7 To the best of my knowledge, the procedure  
8 has been effective and that it's being well-received by  
9 the workers.

10 **MEMBER DOSMAN:** Thank you. I don't know if  
11 Mr. Jarrell would like to comment on that matter, Mr.  
12 Chair.

13 **MR. JARRELL:** Just broadly. It's John  
14 Jarrell, for the record.

15 I'd like to point out that I think the  
16 whole area of training for a new facility, certainly is a  
17 pretty critical part going forward and certainly one on a  
18 corporate level and on a site level, we view the whole  
19 sort of training effort, both ventilation officers, miners  
20 and all people that are going to work in the operating  
21 phase, as a critical component going forward and there's  
22 actually been a fair amount of priority put on that, is  
23 looking at sort of the implementation of I think what you  
24 commonly hear, the term "systematic approach to training".

25 So I think, as we advance this project, I

1 think you're going to hear an awful lot more from us about  
2 the whole area of training and sort of readiness review.

3 **MEMBER DOSMAN:** Thank you.

4 **THE CHAIRPERSON:** Any other Commission  
5 questions? If not, then we'll proceed to 4.1.5, Cigar  
6 Lake project, Number 2 Shaft Flooding, which is a new  
7 item.

8 This item is concerning the flooding of  
9 Shaft Number 2 at Cigar Lake. Mr. Howden, have you any  
10 comments on this item?

11 **MR. HOWDEN:** Thank you, Mr. Chair.

12 Yes, I do. I would like to make a few  
13 introductory remarks if I may. Thank you.

14 First of all, to support in this SDR, I  
15 have Mr. Scissons and Mr. Schryer in Saskatoon and Mr.  
16 Flavelle, a geo-scientist, here in Ottawa.

17 To begin, my understanding is that Mr.  
18 Jarrell will be able to supply further details on the  
19 event and their planned path forward, so I will not  
20 discuss that. What I would like to do, is provide  
21 additional regulatory context surrounding the sinking of  
22 the shaft and the construction of this mine.

23 During the hearings in 2004, there were  
24 extensive discussions on ground control and the potential  
25 for groundwater inflow to the mine, including the sinking

1 of number 2 shaft. At that time, the Commission indicated  
2 the need for ongoing close monitoring and assessment.  
3 From a regulatory perspective, CNSC has been doing this  
4 and I'd like to give you just a couple of points.

5 As indicated in the SDR, Cameco has sunk  
6 the shaft in stages using standard methods to detect and  
7 mitigate water inflow. And at the 392 metre level, the  
8 grouting operations continued for a very long period of  
9 time. Our primary concerns that were discussed with  
10 Cameco prior to this event, were the integrity of the  
11 standpipe, given the length of time that the work was  
12 taking, and confirmation of contingency plans.

13 In this particular case, contingency plans  
14 being moving workers out of the shaft and allowing the  
15 shaft to fill to natural levels.

16 When the event occurred, the licensee  
17 implemented the contingency plans quickly and safely.  
18 Monitoring indicates no health, safety or radiation  
19 protection issues arose. So we are satisfied with these  
20 actions.

21 Since this is an SDR, we don't have all the  
22 information because we wanted to provide the info to you  
23 in a timely manner, but we are expecting a root cause  
24 assessment of this event, for lessons learned and we  
25 expect that any path forward proposed by Cameco will be

1 risk-informed and will go through the joint regulatory  
2 group review process of the CNSC and the other regulators  
3 we work with.

4 From a slightly broader perspective, there  
5 have been issues at this facility that have raised our  
6 concerns, one being the subject of the SDR we just  
7 discussed and regulatory actions were taken to address  
8 those concerns. Our focus remains on the programs needed  
9 for safe operations and the underlying processes needed to  
10 assess and manage the risks on a continual basis. That  
11 includes examining the linkages from this shaft sinking  
12 work to the underground workings for developing the  
13 infrastructure, to the preparations for the mining.

14 That concludes my opening statement and  
15 staff is prepared to respond to any questions that you may  
16 have. Thank you.

17 **THE CHAIRPERSON:** Before we do, Mr.  
18 Jarrell, do you have any comments?

19 **MR. JARRELL:** Mr. Chairman, I have a few  
20 slides that I could show, just to provide some additional  
21 background, if you wish.

22 **THE CHAIRPERSON:** Yes, proceed.

23 **MR. JARRELL:** Okay.

24 Thank you. For the transcript record, my  
25 name is John Jarrell. I am Cameco's Vice President,

1 Safety, Health and Environment. I am joined here today,  
2 actually in Saskatoon, by Barry Schmitke, who is the  
3 General Manager of the Cigar Lake project. We're here  
4 today, to provide some additional information, hopefully  
5 answer some questions.

6 You may recall from past presentations that  
7 the Cigar Lake ore deposit is horizontal in nature, and is  
8 accessed from below the deposit. The ore will be frozen,  
9 prior to extraction in order to control water migration  
10 into the mine.

11 There is currently single shaft access to  
12 the mine and we are in the process of creating a second  
13 access shaft. This second shaft is located in the ore  
14 processing area and is further removed from the ore body  
15 than the original shaft.

16 The mining method to create the second  
17 shaft is the same as used in the first shaft, as well as  
18 in the construction of the three McArthur River shafts.  
19 It could be called a probe and grout method whereby the  
20 ground below the shaft is probed for ground and water  
21 conditions, grouted off with cement and then mined out.  
22 The shaft liner is then extended to the new depth. The  
23 cycle is typically a 40 meter grout cover with 30 meters  
24 advance before the cycle is repeated.

25 What we have produced here is a sketch just



1 to give a sense of what was happening on April the 5<sup>th</sup>.  
2 There are, you'll note, two shafts that are 100 meters  
3 apart. We were on the eighth of a planned ten-grout cover  
4 program. Ground conditions, I would say are generally  
5 more problematic near the unconformity at depth. I would  
6 point out however, that the shaft pilot hole did not  
7 detect this level of a problem before we started the shaft  
8 sinking.

9 At the time of the incident, we were about  
10 50 metres from the basement rock interface and about 90  
11 metres from breakthrough to the mine, at the point of the  
12 problem.

13 As Mr. Howden noted, the shaft was refilled  
14 to natural groundwater levels of approximately 27 metres  
15 below ground surface. We estimate that about 2 metres of  
16 sand was deposited in the shaft bottom from the inflow  
17 event.

18 This had been a particularly difficult  
19 grout cover, which had been taking place for approximately  
20 four months. And in fact, at the time of the event we  
21 were thinking of moving on to the next step, which is  
22 typically to freeze the surrounding ground and then put a  
23 hydrostatic liner through the problem area. This  
24 technology has been used elsewhere in Saskatchewan. It's  
25 been used in the potash industry.

1                   Both shaft 1 and 2, I should point out use  
2 this technique of ground freezing and hydrostatic liner,  
3 particularly at the top of the shaft through the over-  
4 burden.

5                   I should also point out that ground  
6 freezing is extensively used both at McArthur River and  
7 Cigar Lake for ore body preparation. Our current thinking  
8 is that the most likely step is that of ground freezing  
9 from below, but we are still completing the analysis.

10                  At the time of the incident, we had  
11 injected about 900,000 kilograms of cement. We had  
12 estimated that we had refilled about one-half of the  
13 material removed from the formation in the process of  
14 flushing it out, flushing out the grout holes in order to  
15 take the cement.

16                  For a perspective on distance, this sketch  
17 shows the width of the shaft which is 6.1 metres. The  
18 valve on hole 7-D failed. This is the third line from the  
19 top at about 45 degrees angle from the right on this  
20 drawing. The hole which failed was generally on the side  
21 away from the shaft, away from shaft 1 and away from the  
22 ore body. We were working on hole 7-E which was the one  
23 above hole 7-D in this drawing at the time of the  
24 incident.

25                  When we were here requesting a construction

1 licence, we were asked what shaft 2 would look like. It  
2 is obviously not outfitted yet but this photo shows how  
3 the shaft looks in the construction from the top of the  
4 shaft.

5 This picture is taken mid-way through the  
6 shaft sinking that's been done to date. It shows the  
7 process of drilling a grout hole through the valve and  
8 standpipe arrangement on top of the hole. The standpipe  
9 is cemented into place and pressure tested before drilling  
10 into un-grouted ground. The valve in this photo shows up  
11 here as yellow.

12 This is another picture again mid-way  
13 through the work showing drilling work through the valve  
14 and standpipe. I'd also note the presence of the concrete  
15 liner on the walls of the shaft at this particular stage  
16 of the cycle.

17 Here's another picture of grout pipes.  
18 This time four of them are showing in the photograph with  
19 the drill attached to one of the pipes. Note that the  
20 valves are placed in close proximity to the ground and I'd  
21 also note that the shaft is not lined in this picture.

22 Here's a close-up picture of a typical  
23 valve and standpipe arrangement. And here's a close-up of  
24 the valve which was placed onto the grout hole when it's  
25 in active use. It's a two-inch split-bodied gate valve

1 with threaded connections. The valve stem and stem  
2 packing are at the top of the valve.

3 The valve itself weighs about 50 to 60  
4 pounds and has to be removed periodically from the hole to  
5 clear it of hard cement, hence the selection of a split-  
6 bodied design which is secured in placed with four large  
7 studs.

8 Here's a picture of the valve and standpipe  
9 assembly with a threaded coupling between the nut that's  
10 welded on the end of the pipe and the valve itself. We do  
11 not yet know how this valve came off the pipe. It could  
12 be a thread issue. It could be a failure of the  
13 standpipe, the coupling or the valve itself.

14 A sample of the standpipe has been sent out  
15 for metallurgical testing but we do not yet have the  
16 results. It is also quite possible that once we get down  
17 into the shaft again we will find the failed piece and  
18 finally be able to definitively answer the question on  
19 failure mechanism. Regardless of the cause of the  
20 failure, we are near the end of shaft completion and need  
21 to get on with the job of finding an acceptable  
22 alternative way to complete the shaft.

23 As indicated earlier, our thoughts prior to  
24 the event were leaning towards ground freezing in the  
25 remaining zone between the base of the shaft and the

1 underground workings. This remains the likely solution.  
2 We need to complete our analysis and complete a third-  
3 party expert review of the selected option. Once that is  
4 done, we will be in a position to approach CNSC staff with  
5 a proposal to move forward. Once we have technical  
6 acceptance, we would then implement the solution, pump out  
7 the shaft, verify water control and then complete the  
8 shaft through to completion.

9 We'd be happy to answer any questions you  
10 may have at this point. Thank you.

11 **THE CHAIRPERSON:** Does the Saskatoon office  
12 have any comments?

13 **MR. SCHMITKE:** No comments from Saskatoon.

14 **THE CHAIRPERSON:** The floor now is open to  
15 Commission Members.

16 Dr. Barnes?

17 **MEMBER BARNES:** I have several questions  
18 and also some concerns. In fact, I got hold of the  
19 transcripts from our previous meeting and all the  
20 documents because -- and reminded myself that we'd had  
21 this extensive discussion. I think all members expressed  
22 varying degrees of potential concern with this.

23 And just speaking for myself, I felt that  
24 some of the assumptions on the hydro-geologic regime that  
25 was being put forward by Cameco were being presented in a

1 somewhat simplistic fashion. A member made these comments  
2 at the time, the kind of modelling, whether you had the  
3 right kind of drilling information. Most of the drill  
4 holes were somewhat distant from the zone of  
5 mineralization, et cetera. The modelling was based on a  
6 porous media flow regime which almost certainly isn't when  
7 you get into these problematical areas.

8           When you've come before us before, you  
9 typically characterized the Athabasca sandstone as being  
10 one that there's not a high degree of flow within it.  
11 Some fracture flow, but typically the problem as you  
12 indicated at the outset is usually associated with the  
13 "poor ground conditions" around the unconformity where the  
14 mineralization is and so on.

15           So I think it is of concern to see this  
16 level of water influx at a level that is 50 metres above  
17 the unconformity, for one. Now, maybe what you're saying  
18 is that the rate of water flow and the pressure at that  
19 level is not unexpected. It was just that the valve  
20 failed and essentially you had flooding that you couldn't  
21 control.

22           So my first question is, is that the right  
23 interpretation? Why couldn't you control the water flow  
24 coming in?

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

1                   I'll offer two comments and then I'll turn  
2                   to Barry Schmitke.

3                   The comment I make is, first of all, as far  
4                   as the flow rate goes, it's still substantially less than  
5                   -- the line obviously turns parallel to McArthur River,  
6                   substantially lower than that. The flow rate was -- there  
7                   were two thoughts through our mind. One is certainly the  
8                   ability to pump the thing and then what you do if you did  
9                   pump it out. Is it possible to recover that shaft?

10                  The assessment that we did essentially was  
11                  one that rather than take the approach of trying to pump  
12                  it out, that we'd let the thing inflow and then sort of  
13                  set back from this and take a look at what was the best  
14                  systematic approach to deal with this event.

15                  I think what our mind was turning more not  
16                  so much was the volume of water but what would we do if we  
17                  kept it empty. Like what was the resolution mechanism?  
18                  As I indicated in the presentation we gave, our thinking  
19                  at the time even was turning towards freezing. So I think  
20                  that was probably the bigger motivator than just trying to  
21                  keep the thing dry, but I'll ask Barry. Barry can perhaps  
22                  give you sort of a sense of the pump capacities we had and  
23                  what our options were at the time the event occurred.

24                  **THE CHAIRPERSON:** Mr. Schmitke, would you  
25                  like to comment?

1                   **MR. SCHMITKE:** Barry Schmitke for the  
2                   record.

3                   Certainly when the event occurred, our  
4                   pumping rate from the shaft was about 350 cubic metres per  
5                   hour. The unfortunate thing is right at the shaft bottom,  
6                   when we encountered the inflow, of course we have to do a  
7                   number of things and once we have to start moving the  
8                   Galloway, which is a stage you saw in one of the pictures,  
9                   away from the shaft bottom, then we have to turn off the  
10                  pumps to be able to do that. And then we would go higher  
11                  up into the shaft and sort of establish the pump station  
12                  with the full pumping capacity. And certainly we are  
13                  prepared to do that but we wanted to evaluate what would  
14                  be sort of the longer term approach to the resolution.

15                 And water under this pressure, if you're  
16                 down there and you open up a valve when you're flushing  
17                 the grout holes, the water is under a significant amount  
18                 of pressure and it's shooting up into the air without  
19                 control of course. Being there, it would shoot up into  
20                 the air something like seven to nine metres. So it's not  
21                 an insignificant event when you're down there trying to  
22                 control it.

23                 As far as a mechanism to control that sort  
24                 of thing when it breaks, I really haven't encountered one  
25                 and I really don't know of one that's been utilized in



1 shaft sinking. Certainly if it's a relatively small flow,  
2 then you can take and push something into the hole to  
3 restrict the flow, but unfortunately when it's a very  
4 large flow and under significant pressure, then that  
5 becomes very problematic. And of course, then you have  
6 the safety issues that go along with that.

7 **MEMBER BARNES:** Okay. Maybe I'll come back  
8 to that.

9 One thing I don't understand is that in the  
10 written report -- you're going down -- this is the eighth  
11 stage out of 10, and in the written document under 2.0,  
12 the second paragraph, you say:

13 "Prior to sinking through a grout-  
14 covered section..."

15 So in section number 8, this is about the sixth line in  
16 the second paragraph 2.0:

17 "Prior to sinking through a grout-  
18 covered section, a minimum of four  
19 probe holes are drilled to determine  
20 the presence of potential volume of  
21 water."

22 And, Mr. Jarrell, you mentioned there was  
23 one probe hole.

24 So, first of all, how many probe holes were  
25 there? Why had not this interval been recognized? The

1 fact that you're pumping or having to pump 900,000  
2 kilograms of grout over four and a half months must tell  
3 us something about, again, some rather curious lithologies  
4 down there, right?

5 So from a geological viewpoint, why is that  
6 particular -- what has happened to the formation at that  
7 particular interval and why didn't the probe holes pick  
8 that up?

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

10 I must apologize. I think I've confused  
11 you. I was referring to an initial pilot hole that was  
12 put down prior to the sinking of the shaft and that was  
13 separate from sort of the probe holes for each stage.

14 So my apologies if I've misinterpreted  
15 that.

16 As far as the number of probe holes, I  
17 think it's a function of the ground conditions. I'll ask  
18 Barry to sort of lay the stage as to what was happening at  
19 that particular grout cover number 8, if I could.

20 **MR. SCHMITKE:** Barry Schmitke for the  
21 record.

22 The hole from surface is actually a  
23 geotechnical hole as what Mr. Jarrell indicated, and it's  
24 meant to test the geotechnical conditions of the ground  
25 for the shaft sinking. There's a number of geotechnical

1 tests that are done on that hole as well as testing on the  
2 core and things like that.

3 For each of the grout covers, what we do is  
4 we establish a minimum of four holes to test for water.  
5 We don't actually test for geotechnical conditions so much  
6 other than the fact of when we hit a zone that's really  
7 soft, we can tell with a drill, but there's no core taken  
8 to do that sort of evaluation other than just the  
9 performance of the drill itself.

10 So in this particular case, we had  
11 indications from probe hole number 7 -- and I can't  
12 remember the exact number of holes that we had in probe  
13 hole number 7, but it probably was in the neighbourhood of  
14 about 25 holes -- that there was additional water and poor  
15 ground conditions as we proceeded down.

16 So when we got into grout cover number 8,  
17 we drilled a total of 33 holes and four of them were the  
18 centre holes that we continued to test. After we did some  
19 grouting, we re-drilled those four initial holes -- or  
20 four holes sort of around the centre of the shaft to  
21 determine the effect of the grout cover. And obviously,  
22 if the grout cover is not satisfactory, as was in this  
23 case, we continued to add additional grouting holes.

24 **MEMBER BARNES:** So on the drilling, you're  
25 not taking cores as such? At no time in these are you

1       trying to take cores to understand the nature of the  
2       lithology?

3                   **MR. SCHMITKE:** Barry Schmitke.

4                   That's correct; we do not take cores during  
5       the grout covers.

6                   **MEMBER BARNES:** Even when you're there for  
7       four and a half months pumping nearly a million tonnes of  
8       concrete into a lithology you don't understand, it's not  
9       worth taking a core?

10                  **MR. SCHMITKE:** Barry Schmitke for the  
11       record.

12                  The core would certainly tell us that we  
13       have a problematic area, but we would continue on grouting  
14       until we felt that going to the next step, which is ground  
15       freezing, would be the appropriate method, and that's  
16       where we were at with this particular grout cover.

17                  **MEMBER BARNES:** And you're at the 392-metre  
18       level. You've still got another 50 metres to go through  
19       the Athabasca sandstone until you get to the end  
20       conformity and to the zone of mineralization. So  
21       potentially you've got another 50 metres of potential  
22       difficult rock to get through.

23                  Is that right?

24                  **MR. SCHMITKE:** Barry Schmitke.

25                  That is the correct assessment.

1                   **MEMBER BARNES:** And how far away was the  
2 so-called pilot hole from Shaft Number 2?

3                   **MR. SCHMITKE:** Barry Schmitke.

4                   The pilot hole for Shaft No. 2 was collared  
5 in the centre of the shaft and, of course, there was some  
6 deviation by the time it reached the 392-metre level. So  
7 it was probably off the centre maybe about two or three  
8 metres.

9                   **MEMBER BARNES:** But even at two or three  
10 metres, given that you're pumping 900,000 kilograms of  
11 grout, this area of high permeability and high water flow  
12 must extend some distance away from the shaft, wouldn't  
13 you think?

14                  **MR. SCHMITKE:** Unfortunately, we don't have  
15 additional holes there to say that, but I would say your  
16 assessment is probably correct.

17                  **MEMBER BARNES:** I mean, you've got to put  
18 900,000 kilograms of concrete somewhere. Volumetrically,  
19 it's got to be some distance from the shaft.

20                  **MR. SCHMITKE:** Barry Schmitke for the  
21 record.

22                  I think there's two things. One, it would  
23 flow some distance from the shaft. Plus, there are a lot  
24 of fractures that potentially maybe don't have material in  
25 them or water which are also filling up with the cement.

1                   **MEMBER BARNES:** Given that ultimately --  
2 well, let me just ask another question. I guess the pumps  
3 that you're using here, are they the size and volume of  
4 the pumps that you had planned originally to install at  
5 the bottom of Shaft Number 2 when it was in operation?

6                   **MR. SCHMITKE:** Barry Schmitke for the  
7 record.

8                   The pumping capacity that we would install  
9 for the operating mine facility would be approximately  
10 1,500 cubic metres per hour. So there's substantially  
11 more pumping capacity than we had for the Number 2 shaft.

12                   **MEMBER BARNES:** So when you realize the  
13 volume of water here coming in, which was, according to  
14 your figures, 350, it was not possible to put additional  
15 pumps down there to, in a sense, control the water by  
16 simply pumping it out?

17                   **MR. SCHMITKE:** Barry Schmitke.

18                   No. The difficulty there is that you're  
19 constrained by the size of the shaft and that the Galloway  
20 stage has to pass by the pumping installation as you move  
21 the Galloway up and down for moving equipment and moving  
22 men and materials at certain times.

23                   So you're really restricted by the amount  
24 of room that you have available for installation of pumps.

25                   **MEMBER BARNES:** Last question. When we

1        were considering the plans for this, we have basically two  
2        principal shafts, Shafts 1 and 2, and Shaft 2, which is  
3        designed for ventilation and also for egress of personnel.  
4        So in a sense you're stymied at 392 in very difficult  
5        ground and there's a potential for that ground to continue  
6        in a weak state through the next 50 metres into another  
7        zone of unconformity in basement rock which also might be  
8        rather weak in its strength.

9                    At this point, do you believe that from a  
10       geotechnical viewpoint you can construct Shaft 2 from 392  
11       down to whatever it is, nearly 500 metres, another 100  
12       metres or so in such a way that workers in the underground  
13       workings could have confidence that that Shaft 2 would  
14       have the integrity to work in the two functions that I  
15       just outlined?

16                    Do you see what I'm getting at? Are the  
17       conditions that you're finding at the bottom of the shaft  
18       at 392 metres now and what you potentially might encounter  
19       for the next 50 to 100 metres, has this given you second  
20       thoughts whether Shaft 2 can ever function as a safety  
21       exit for staff or for workers?

22                    **MR. SCHMITKE:** Barry Schmitke for the  
23       record.

24                    Certainly, what we have to do in sinking  
25       the shaft from 392 to roughly around 480 metres, which is

1       our existing shaft station, we have to sink through frozen  
2       ground to ensure that we can sink efficiently and safely,  
3       and this is a fairly common practice that has been used  
4       both at Cigar Lake and in the potash industry for their  
5       shaft development.

6                       The second thing that's really important is  
7       the installation of the hydrostatic liner from just above  
8       the 392-metre level, probably around the 390 or 387-metre  
9       level down into a very good basement rock. And we have  
10      done some geotechnical drilling in that area and we  
11      certainly are planning on doing some additional drilling  
12      to make sure that we understand where the interface should  
13      be to end the hydrostatic lining. If we have to carry the  
14      hydrostatic lining all the way down to the 480 level, then  
15      that's what we will do because we know at the 480 level,  
16      we're already there and there is good ground condition.

17                    **MEMBER BARNES:** Could I just ask staff if  
18      they have any comments on what they heard so far.

19                    **THE CHAIRPERSON:** Yes. Go ahead.

20                    **MR. HOWDEN:** I'd like Mr. Scissons or Mr.  
21      Schryer to comment, please.

22                    **MR. SCHRYER:** Denis Schryer for the record.

23                    We have not seen the proposal that Cameco  
24      is currently developing. We are, however, expecting that  
25      the details will be forthcoming to us. Our expectation is



1 that all of the aspects that were discussed here will be  
2 considered in a full risk assessment and that we plan on  
3 having our facility assessment and compliance team as an  
4 integral part of this review.

5 So it's early at this point to say yes or  
6 no, but we certainly will be diligent in doing our review  
7 of this proposal.

8 **THE CHAIRPERSON:** Anything, Dr. McDill? Do  
9 you have any questions?

10 **MEMBER McDILL:** Thank you.

11 Have you ever pumped 900,000 kilograms for  
12 any other shaft, you know for the same distance of course?

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

14 Personally, no. I'll ask Barry. Barry has  
15 some experience in potash. So he'd probably be in a much  
16 better position to answer that question.

17 **MR. SCHMITKE:** Barry Schmitke.

18 At Cigar Lake, we have not pumped this much  
19 cement into one location.

20 In the potash industry, I was involved in  
21 several shaft remediation jobs and we pumped a lot of  
22 cement, and in one case, my memory recalls, we also had to  
23 do some fairly unique things to replace what we couldn't  
24 grout, and that was essentially putting in cast iron  
25 tubing, freezing, all of those sorts of things, which also

1 takes it several levels beyond the grouting of a shaft.

2 **MEMBER McDILL:** So it wouldn't necessarily  
3 have been that red flags would have gone up in a situation  
4 like this? I think my colleague ---

5 **MR. SCHMITKE:** Barry Schmitke.

6 Not so much in the sense that we couldn't  
7 grout the formation off. If we would have sat there long  
8 enough and pumped a lot of cement, we would eventually  
9 have sealed it off, but it's also a question of timing and  
10 schedule. And what we looked at is -- and we had some  
11 preliminary discussions with the regulating agencies  
12 regarding this -- is to continue on grouting would have  
13 taken a substantial period of time with some question of  
14 success, in other words total success because obviously  
15 even with grouting and cement, you still run the risk of  
16 at some point in time in the future it may not have the  
17 same integrity as today.

18 So what we looked at is well, what was the  
19 best method which we know of to go through this difficult  
20 ground, and of course freezing is the next step from where  
21 we are today.

22 **MEMBER McDILL:** Two more questions, if I  
23 may.

24 If you could bring up the picture of either  
25 the valve and the pipe or the ---

1                   **THE CHAIRPERSON:** I don't think we have  
2 that as overheads as such.

3                   **MEMBER McDILL:** We don't? Okay.

4                   **THE CHAIRPERSON:** So maybe you can just  
5 refer to it. I think everyone has a copy of that, Dr.  
6 McDill.

7                   **MEMBER McDILL:** Thank you.

8                   What was it that was attempted to be  
9 tightened? Was it the -- it's not clear to me what it  
10 was, that there was a leak at the valve connection. I  
11 wonder if ---

12                   **MR SCHMITKE:** Barry Schmitke for the  
13 record.

14                   If you look at the slide showing the  
15 grouting equipment where the valve and standpipe are  
16 laying horizontally on the ground, the individual was  
17 attempting to tighten the valve onto the standpipe.

18                   So if you notice that thread where the  
19 valve goes into the standpipe, there's an 80-centimetre  
20 mark there. I believe the individual is trying to attempt  
21 to tighten that location.

22                   Now, exactly where the water was coming out  
23 from, I'm not exactly sure.

24                   **MEMBER McDILL:** So you're not even certain  
25 where the tightening was occurring or attempted to be?

1           You believe it was there but you're not certain?

2                       **MR. SCHMITKE:** Well, the way the standpipe  
3 is constructed, if you look at -- there's a nut there.  
4 That nut is welded onto the standpipe, and if you notice,  
5 that's at the 70-centimetre mark. So the individual would  
6 have put a wrench onto the valve and they would have  
7 started turning on that valve.

8                       So whether the valve was cross-threaded  
9 onto the standpipe, or in fact there was a failure of the  
10 standpipe itself at that location, I don't know.

11                      **MEMBER McDILL:** And presumably it's under  
12 400 meters of water?

13                      **MR. JARRELL:** John Jarrell for the record.  
14 I should point out, I think you fully  
15 expect and we did too, that we would do a root cause  
16 analysis of this. One thing we did first was to interview  
17 the various people that were in the shaft at the time this  
18 event occurred. We haven't finished that report yet but  
19 we'll put it together. But when I asked the investigators  
20 that looked at it, I think we're going to be somewhat the  
21 prisoner of, I think, that evidence business, that you  
22 talk to three people, you get slightly different  
23 interpretations of what happened.

24                      Nevertheless, in the final root cause  
25 analysis report, we'll be able to, I think, report as best

1 we can on what was happening there, because that's the  
2 part of the analysis we said we should do right away,  
3 right off the bat, was to talk to people that were  
4 involved and we've completed that part of the root cause  
5 analysis.

6 **MEMBER MCDILL:** Thank you.

7 Staff, do you have any comment on that? I  
8 do have one more question.

9 **MR. HOWDEN:** I'll ask Kevin Scissons or  
10 Denis Schryer to comment if they have any.

11 **MR. SCISSONS:** Kevin Scissons.

12 We have no further comments on the valve or  
13 the failure of the valve standpipe arrangement. We will  
14 also wait for the evidence and final report from Cameco on  
15 this before we can provide any other insights or comments  
16 on it.

17 **MEMBER MCDILL:** Thank you.

18 And my final question for Cameco, are you  
19 planning now to change your physical model of this part of  
20 the -- you know, your fractured rock model so that you  
21 have a higher water flow content?

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

23 We'll have to look at it. As you'd expect,  
24 again, you'd expect us to do it. When this happened, of  
25 course, we looked at the piesometers around, the ones we

1 had, to see what kind of a response we got for those. We  
2 haven't completed an analysis on that yet.

3 My first reaction on that, I think,  
4 essentially is this. I'll be interested to see just to  
5 what extent we can learn from this, given the fact that  
6 we've significantly altered the ground obviously by  
7 putting 900,000 kilograms of cement into it.

8 And the other point I'd make, I think, is  
9 as we look at this and sort of reaching the unconformity  
10 and the kind of difficulties, I think the other thing to  
11 bear in mind always is that 100 meters away from this we  
12 had another shaft sinking that didn't run into this issue.  
13 So to the extent to which this is localized I guess is to  
14 be determined, but I think that's probably the other acid  
15 test to this, is the fact that we sunk a shaft  
16 successfully very, very close to this one.

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

18 **THE CHAIRPERSON:** Dr. Dosman.

19 **MEMBER DOSMAN:** Mr. Chair, my question is  
20 for CNSC, Mr. Howden.

21 Mr. Howden, in your comments some minutes  
22 ago, you referred to other issues or "a number of issues"  
23 relating to operation of the site, and I wonder if you  
24 might be willing to discuss those issues with the  
25 Commission.

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

2                   Before I pass this to Saskatoon staff, yes,  
3                   one of the issues was the SDR we just discussed before  
4                   with the blast gases. That was one issue. And I'll pass  
5                   it to Mr. Scissons or Mr. Schryer to comment. But we had  
6                   been having ongoing concerns and worked through those  
7                   concerns with Cameco, but I'll ask them to provide you a  
8                   bit more detail on that.

9                   **MR. SCISSONS:** Kevin Scissons.

10                  The issue I was referring to was also  
11                  touched on in the other significant development report  
12                  presented earlier to the Commission at the end of  
13                  February, I believe it was, or March, and what it's  
14                  relating to is an assessment that was done on the facility  
15                  after one year of construction activities.

16                  We did an evaluation report by staff, as  
17                  presented to the licensee, and they have subsequently  
18                  responded. In that assessment, after the one year of  
19                  construction activities, they identified some areas of  
20                  improvement that were below requirements in a number of  
21                  the safety areas. We provided the information and  
22                  documentation to our licensee and the licensee, again, has  
23                  responded in a report, a response in January. And we are  
24                  moving forward with that compliance program under this  
25                  licensed activity for the Cigar Lake facility and it is

1 part of our ongoing joint regulatory process as well with  
2 the licensee on their construction activities.

3 **THE CHAIRPERSON:** Dr. Dosman.

4 **MEMBER DOSMAN:** I have a question to CNSC  
5 staff. Will you be coming back and reporting to the  
6 Commission with regard to once all the options are looked  
7 at and whether or not a license amendment may be required?  
8 Will you come back with, 1) the options; 2) with whether  
9 or not a license amendment and perhaps also the root cause  
10 analysis report on that?

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

12 Yes, we will, for sure. We'll definitely  
13 come back with an update just to let you know where  
14 everything is going, similar to what we've done with the  
15 other SDRs as well as the options are rolled out and we  
16 examine them, we'll have to come to a conclusion whether  
17 an amendment is required or approval under a license  
18 condition.

19 But, nonetheless, either way we would come  
20 back and report to you. So I expect, as a minimum, we'd  
21 come back to you and report one time. If everything isn't  
22 contained in that one report then we'd have to come back a  
23 second time.

24 Please note that at some point in time  
25 Cameco will be applying for an operating license and,



1 again, that will come in front of the Commission if they  
2 reach the point where they can actually make that  
3 application.

4 Thank you.

5 **THE CHAIRPERSON:** I have one further  
6 question for Mr. Jarrell. At any time were any of the  
7 workers subject to safety conditions that might turned out  
8 in the negative, might have turned out as a disaster with  
9 that large influx of water coming in quickly and the  
10 evacuation? Was there at any time -- could there have  
11 been a very major accident with this influx of water?

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

13 I think the short answer is no, and I'd  
14 expand on that a bit.

15 There were good health and safety  
16 precautions taken. There was radiation monitoring done at  
17 the time of the event. The sinking of Shaft 2 actually  
18 has been very successful from a safety perspective. This  
19 is, of course you could argue, it's challenging work and  
20 there's been very few lost-time accidents as a result of  
21 this incident.

22 There was only one, for example, in 2005.  
23 It was a twisted ankle. So given the volume of work that  
24 we're doing, actually the safety record's been very, very  
25 good in that shaft construction.

1                   So from my perspective, my assessment of  
2                   it, appropriate measures were taken in order to protect  
3                   the health and safety of the workers -- both radiation  
4                   protection and conventional.

5                   I'd also just, to finish off, just like to  
6                   talk a little bit about sort of the broader picture that  
7                   was raised. I think it would be fair to say our  
8                   perspective is that these are, obviously, very eventful  
9                   times for the Cigar Lake project. I guess our view is  
10                  construction is probably likely one of the most  
11                  challenging times in the life of this facility.

12                  When Mr. Howden referred to other issues --  
13                  I think, one of the things when we look back and reflect  
14                  on this I think is one of resource expectations, which  
15                  were somewhat perhaps different at the onset from staff  
16                  expectations as to how fast one ramps up staff.

17                  We put quite a bit of effort into that. I  
18                  think the other, sort of broadly speaking, the other large  
19                  lesson learned from sort of bringing this project on is  
20                  the need to bring some of these health, safety and  
21                  radiation protection programs on, perhaps, in advance of  
22                  when they're needed. So I think our expectations have  
23                  changed. The lesson learned for us, I think, throughout  
24                  this is to bring these programs on perhaps faster than we  
25                  might otherwise in the past.

1           I think the other thing we've learned is  
2           the need for additional support and oversight from the  
3           corporate group. CNSC staff in many of their comments  
4           have pointed out that there is quite a bit of expertise  
5           within the company to deal with these things. And  
6           certainly for the last few months we've spent a fair  
7           amount of time making sure that we tap into that expertise  
8           so that it's not just the Cigar Lake people alone that are  
9           looking at this facility.

10           There has been, I think, a pretty  
11           substantive change in the way we're approaching the  
12           finishing off of this construction of this mine.

13           Thank you.

14           **THE CHAIRPERSON:** A further question, and  
15           I'm just following your line of answering, are you under  
16           corporate pressure for shortage of resource at this time  
17           that may not have been around 2, 3, 4 years ago to work  
18           faster and smarter and get the job done quicker? Is this  
19           a part of the corporate thinking?

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

21           I have no doubt that safety remains the top  
22           priority. Obviously our investors and the market's very  
23           interested in how fast we could bring this resource on.  
24           We provide guidance to our investors as appropriate.  
25           There is a potential for some delay as a result of this

1 activity and we've been providing guidance to investors in  
2 that regard.

3 But, again, it's sort of into the whole  
4 marketing business and the timing of the project. And  
5 that's basically where we provide the guidance to those  
6 sort of quarterly information things -- annual information  
7 forms and the like like that.

8 **THE CHAIRPERSON:** My question was, are you  
9 under corporate pressure for a shortage of resource to  
10 have more ore produced in a quicker and smarter way?

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

12 I think not. As I said at the onset, I  
13 think safety is the first priority in bringing this  
14 resource on.

15 **THE CHAIRPERSON:** Thank you.

16 Are there any other questions from  
17 Commission members? From staff?

18 If not, we'll proceed then to -- this must  
19 be Cameco's day. We'll proceed then to now move to 4.1.2  
20 of the SDRs which is also follow-up to the February 16<sup>th</sup>  
21 meeting in regard to sulphuric acid incidents at the Key  
22 Lake operation.

23 Mr. Howden, have you any comments on this  
24 item?

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

1                   No, nothing further to add to this. Again,  
2 Mr. Scissons is available in Saskatoon to respond to  
3 questions.

4                   Thank you.

5                   **THE CHAIRPERSON:** Saskatoon.

6                   **MR. SCISSONS:** No, we have no further  
7 comments from Saskatoon.

8                   **THE CHAIRPERSON:** Mr. Jarrell, do you have  
9 any comments?

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

11                  No, we have submitted our root cause report  
12 on this. It was submitted on March the 16<sup>th</sup>. It lays out  
13 a corrective action plan that will carry us forward into  
14 the summer months of 2006 where there will be additional  
15 investigation and some recovery of contaminated soils.  
16 So, I think we've responded pretty vigorously to this  
17 event.

18                  Thank you.

19                  **THE CHAIRPERSON:** Commission members.

20                  Pardon me. If not, then, we will move to  
21 Significant Development Report 4.1.3, which is a follow-up  
22 from the February 16<sup>th</sup> meeting in regard to a truck  
23 accident at McClean Lake Operation. Mr. Howden, have you  
24 any comments on this item?

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

1                   No further comments. Again, I have Mr.  
2 Scissons as a resource person in Saskatoon if you have any  
3 questions for him.

4                   **THE CHAIRPERSON:** I also note that COGEMA  
5 Resources Inc. are in Saskatchewan office also via video  
6 conference and we'll first start with Mr. Scissons and  
7 then I'll ask COGEMA if they have anything to add.

8                   **MR. SCISSONS:** This is Kevin Scissons.

9                   No, we have no further comments to provide  
10 other than what's in our written SDR.

11                   **THE CHAIRPERSON:** Mr. Pollock from COGEMA,  
12 do you have anything to add?

13                   **MR. POLLOCK:** Bob Pollock for the record.

14                   No, we have nothing further to add to the  
15 statements there. We note that the staff inspection did  
16 confirm that the staff was satisfied; we were satisfied  
17 before we resumed the work and I note that staff  
18 inspection provided further confirmation that the  
19 corrective actions had been taken.

20                   **THE CHAIRPERSON:** Commission members, Dr.  
21 Dosman.

22                   **MEMBER DOSMAN:** Mr. Chair, I wonder if I  
23 might ask Mr. Pollock to comment on the remedial measures  
24 that have been taken at the site.

25                   **MR. POLLOCK:** The key measures were to

1 provide some reconfiguration to ensure that we had either  
2 one-way traffic or that the roads were not restricted in  
3 terms of vehicles being able to meet. We've also provided  
4 closer oversight and ensure that the contractor  
5 supervision provides more direct oversight of the actual  
6 work as it is in progress.

7 **MEMBER DOSMAN:** From the documentation it  
8 sounded to me like one-way traffic had been instituted.  
9 But it sounds, Mr. Pollock, from what you said, that maybe  
10 one-way traffic isn't fully instituted?

11 **MR. POLLOCK:** Before we re-started the work  
12 we had reconfigured the area out of the pit so that we had  
13 ensured one-way traffic. It was supposed to have been in  
14 place at the time of the accident, however, the procedure  
15 required the driver to pull-off onto a pull-off area if  
16 there was a vehicle coming up. And that procedure was not  
17 adhered to at the time of the accident.

18 All he had done is made it such that during  
19 that initial binge that the traffic was out one way and  
20 there was a fully separate way into the pit. So rather  
21 than have an administrative procedure, it was a physical  
22 reconfiguration of the access.

23 **MEMBER DOSMAN:** Thank you.

24 And I wonder if I might CNSC staff if staff  
25 is confident that these measures are likely to result in

1 the prevention of a future similar event?

2 **MR. HOWDEN:** I'll ask Mr. Scissons to  
3 comment on that, please.

4 **MR. SCISSONS:** Kevin Scissons.

5 Yes, we've confirmed through our inspection  
6 in February, as well with the project officer on site that  
7 these corrective actions appear to be working and should  
8 work into the future. We will periodically assess it  
9 during inspections in joint regulatory inspections with  
10 the other agencies and confirm the success of that, but we  
11 are satisfied that these measures have been implemented  
12 and should minimize the risks of this type of incident  
13 reoccurring.

14 **MEMBER DOSMAN:** Mr. Chair, I take it from  
15 the documentation that the worker who was injured in  
16 question is planning to return to work. I wonder, Mr.  
17 Pollock, if that means the worker has not suffered a  
18 permanent disabling injury?

19 **MR. POLLOCK:** The information I have is  
20 that the worker expects to make a full recovery, which is  
21 good news.

22 **MEMBER DOSMAN:** Thank you.

23 **THE CHAIRPERSON:** Dr. Barnes.

24 **MEMBER BARNES:** On the bullets at the top  
25 of page 2, what was the speed limit?



1                   **MR. POLLOCK:** Two numbers -- I can recall  
2 two numbers. One is 20 kilometres per hour and the other  
3 is 30, and I can't off the top recall whether it was 20 or  
4 whether it was 30. It was either one or the other. So  
5 the speed that was estimated by the reconstruction expert  
6 was well above the speed that was supposed to have been  
7 used. I don't have the document with me and I can't  
8 recall whether the number is 20 or whether it's 30.

9                   **MEMBER BARNES:** And was the driver of that  
10 vehicle disciplined in any way?

11                   **MR. POLLOCK:** The driver is no longer an  
12 employee of the contractor.

13                   **MEMBER BARNES:** Has he been to the dentist?

14                   **MR. POLLOCK:** I don't know.

15                   **THE CHAIRPERSON:** Dr. McDill.

16                   **MEMBER McDILL:** I think my question is  
17 similar. The contractor's supervisor, I guess, was  
18 cautioned about fitness of their workers. How can you  
19 make sure that that's the case, that the workers are fit?

20                   **MR. POLLOCK:** There are two things. One is  
21 to encourage people if they are concerned about their  
22 fitness to ensure that there's a climate where they can  
23 report that, and are in fact encouraged to report it. One  
24 does not want people to suppress these sorts of things.  
25 And then in many cases it's a matter of if there are

1 visual signs that somebody is under stress to follow-up  
2 with them.

3 So I guess at the end of the day, it's  
4 extremely difficult to provide a 100 per cent guarantee.  
5 One has to rely, certainly to some extent, that if people  
6 have conditions that are not going to be visually obvious  
7 that they're encouraged to bring those forward. We simply  
8 do not want people to be working when they feel that their  
9 ability to do so is degraded.

10 **MEMBER McDILL:** Thank you.

11 Maybe I could ask staff to comment on the  
12 same thing.

13 **MR. HOWDEN:** I'll ask Mr. Scissons to  
14 respond to that.

15 Thank you.

16 **MR. SCISSONS:** Kevin Scissons.

17 In regards to the suitability of workers,  
18 we rely on the licensee who is responsible for the  
19 operation and the operation of the facilities, including  
20 their workers, that they have trained and competent  
21 workers who are healthy and available to work. We have to  
22 rely on them on a day-to-day measure to have that  
23 supervisory oversight, and the workers, including their  
24 own Health and Safety Committee, available to deal with  
25 the workers needs on a daily basis on their suitability.

1                   We have an opportunity during our  
2                   inspections and our audits and evaluations to measure some  
3                   of these, but on a day-by-day basis, we have to rely on  
4                   the licensee and the performance of their workers in  
5                   accordance with their Act and Regulations, the  
6                   responsibilities of the workers with due diligence for  
7                   their activities they perform on site.

8                   **MEMBER McDILL:** Thank you.

9                   **THE CHAIRPERSON:** Thank you.

10                   Any other further questions from Commission  
11                   Members?

12                   If not, we will go on to the next SDR and I  
13                   thank Mr. Howden and I'll ask Mr. Jammal to come forward.  
14                   We'll just take a moment to change staff.

15                   **(SHORT PAUSE)**

16                   **THE CHAIRPERSON:** Thank you.

17                   I note Ramzi Jammal, Director General for  
18                   the Directorate of Nuclear Substances Regulation, is  
19                   responsible for the next report as outlined in item 4.1.4  
20                   about a stolen nuclear gauge.

21                   Mr. Jammal, do you have any additional  
22                   comments to make on this report?

23                   **MR. JAMMAL:** Thank you, Mr. President,  
24                   Members of the Commission. For the record, Ramzi Jammal.

25                   I would like to add and provide the

1 Commission Members with the following information that was  
2 omitted from the SDR. The licensee name is Calfrac Well  
3 Services Limited and the licence number is 12987.

4 For the record, I have with me Ms. Pam  
5 Jones, Acting Director, and next to me is Jennifer Pyne,  
6 Project Officer. Staff is available to answer any  
7 questions.

8 **THE CHAIRPERSON:** Thank you, staff.

9 Dr. Barnes.

10 **MEMBER BARNES:** Have the thieves been  
11 caught yet?

12 **MR. JAMMAL:** I will ask Ms. Pyne to answer  
13 the question.

14 **MS. PYNE:** To our knowledge, they have not  
15 been caught as of yet. The vehicle was recovered, but  
16 their initial thoughts are that it was a joy ride by some  
17 late night lifers. There is a local nightlife close to  
18 where the hotel was. They believe it was just joy riders  
19 that took both the vehicles, crashed them and left them.

20 **MEMBER BARNES:** Early morning riders  
21 really.

22 **(LAUGHTER)**

23 **THE CHAIRPERSON:** Dr. McDill.

24 **MEMBER MCDILL:** Thank you.

25 Has the company changed its policy with

1       respect to keeping vehicles warm on cold mornings near  
2       nightlife?

3                   **MR. JAMMAL:** For the record, Ramzi Jammal.

4                   That's a good question. Part of the action  
5       plans provided to us by the company is the nature of the  
6       vehicles when we approach the company on action plans and  
7       we discussed with them about remote starters, the nature  
8       of the vehicles will not allow such thing. But definitely  
9       the company has changed their practice. No more start up  
10      with the keys in the ignition for warm ups. They have  
11      installed in their vehicles for the winter operations  
12      external heaters operated by electrical supply to heat up  
13      the vehicles without turning on the ignitions.

14                  In addition to that, the owner of the  
15      company has shown the CNSC that he is aware of his  
16      responsibilities and did install GPS in his vehicles of  
17      course to protect his assets.

18                  **THE CHAIRPERSON:** Dr. Dosman.

19                  **MEMBER DOSMAN:** So Mr. Chair, I wonder if I  
20      might ask CNSC staff, the gauge was in the vehicle but the  
21      gauge wasn't removed from the vehicle presumably. It was  
22      kept in its compartment. And is that compartment locked?

23                  **MR. JAMMAL:** For the record, Ramzi Jammal.

24                  I will pass on the answer to Ms. Pyne.

25                  **MS. PYNE:** For the record, Jennifer Pyne.

1                   The gauge is double-locked in its  
2                   compartment in the back of the vehicle.

3                   **MEMBER DOSMAN:** And I take it that the  
4                   company concerned the employees had followed that  
5                   procedure, the gauge was properly stowed and so on?

6                   **MS. PYNE:** Yes, it was. When the vehicle  
7                   was found, the storage container was found not to have  
8                   even been tampered with. It was still locked and it had  
9                   not been attempted to be opened.

10                  **MEMBER DOSMAN:** So presumably, the public,  
11                  including those who borrowed the vehicles, who used the  
12                  vehicles, were not submitted to any radiological risk  
13                  because procedures were followed and so on. Am I correct?

14                  **MR. JAMMAL:** For the record, yes. The  
15                  storage of the gauge was properly done, in addition to the  
16                  visual verification, physical verification was done on the  
17                  gauge.

18                  Once the truck was found in the bush, the  
19                  licensee did take surveys of the cage itself, where the  
20                  housing of the gauge is and for the external box, and the  
21                  measurements submitted to us and the verification have  
22                  shown that no radiation doses were received by anybody,  
23                  let it be when the truck was parked, nor the joy riders  
24                  that decided to steal the truck.

25                  **MEMBER DOSMAN:** And is CNSC staff confident

1           that the company is taking serious measures that would be  
2           unlikely to -- that would be likely to prevent a  
3           reoccurrence of such an incident?

4                       **MR. JAMMAL:** For the record, Ramzi Jammal.

5                       CNSC staff are satisfied that the licensee  
6           has taken extensive measures to ensure that this will not  
7           occur, and to mitigate the nature of the incident by not  
8           having these vehicles being running for warm up as such  
9           and installing alarms and GPS, he did take measures to  
10          mitigate such actions.

11                      **MEMBER DOSMAN:** Thank you.

12                      **THE CHAIRPERSON:** Thank you.

13                      A very expensive vehicle and I find it  
14          quite astonishing why they didn't have the electric  
15          heaters on, which almost every transport has in Canada in  
16          the cold winter months, that that wasn't there.

17                      Anyway, is there any other comments from  
18          Members? If not, thank you very much, Mr. Jammal.

19                      Are there any other Significant Development  
20          Reports that should be brought to the attention of the  
21          Commission today? Mr. Jammal?

22                      **MR. JAMMAL:** No.

23                      **THE CHAIRPERSON:** Okay. We will then move  
24          to the Status Report on Power Reactors. We will move to  
25          the next item on the agenda which is Status Report of

1 Power Reactors as outlined in CMD 06-M22.

2 I will ask Mr. Ian Grant, Director General,  
3 Directorate of Power Reactor Regulations, whether there  
4 are updates he wishes to add to this report. Mr. Grant,  
5 is there anything else you would like to add today?

6

7 **06-M22**

8 **Status Report on Power Reactors**

9 **MR. GRANT:** Good afternoon, Mr. Chair.

10 No, there are no further updates to add to  
11 the Status Report presented to you.

12 **THE CHAIRPERSON:** Are there any Commission  
13 questions?

14 If not, thank you very much.

15 We will now move to the Annual Report on  
16 the Decommissioning Plan and the Financial Guarantee for  
17 Nuclear Facilities Owned by Ontario Power Generation, and  
18 this next item is CMD 06-M23.

19 Again, I will call upon Mr. Ian Grant,  
20 Director General, Directorate of Power Reactor Regulations  
21 to be present, and I believe he has a couple of staff  
22 members also that are here today.

23 Also, I believe we have representatives  
24 from OPG. Mr. Nash is here. So would he like to come  
25 forward also?



1                   First of all, Mr. Grant, do you have  
2 anything to report on this CMD 06-M23?

3  
4                   **06-M23**  
5                   **Annual Report on the Decommissioning**  
6                   **Plans and the Financial Guarantee**  
7                   **for Nuclear Facilities owned by**  
8                   **Ontario Power Generation Inc.**

9                   **MR. GRANT:** Thank you, Mr. Chair.

10                   For the record, I am Ian Grant, the  
11 Director General of the Directorate of Power Reactor  
12 Regulation. With me on my left is Bob Lojk, the Director  
13 of the Waste and Decommissioning Division and to my  
14 further left, Mr. Robert Barker, Project Officer within  
15 that division.

16                   Staff does have a presentation to make and  
17 will be with you in just a moment, as soon as the  
18 technology warms up, and I will pass firstly onto Mr.  
19 Barker.

20                   **MR. BARKER:** Thank you, Mr. Grant.

21                   My name is Robert Barker and I'm the  
22 Project Officer in the Waste and Decommissioning Division.

23                   CMD 06-M23 presents CNSC staff's third  
24 Annual Report to the Commission on the status of  
25 decommissioning plans and financial guarantees for Class 1

1 nuclear facilities owned by OPG.

2 In the Commission's decision of May 14,  
3 2003, CNSC staff were directed to provide by April 30<sup>th</sup> of  
4 each year a report on decommissioning plans and the  
5 associated financial guarantee for OPG's seven facilities  
6 listed here.

7 The first and second annual updates were  
8 previously reported to the Commission in March of 2004 and  
9 April of 2005 respectively.

10 License conditions for these seven  
11 facilities requires OPG to submit a decommissioning and  
12 financial guarantees report on a frequency to be  
13 determined by the Commission or an authorized person.

14 CNSC staff accepted OPG's proposal for an  
15 annual update. In addition, OPG provides by January 31<sup>st</sup>  
16 of each year a report containing finalized month-end  
17 valuation statements for the previous year for the ONFA or  
18 the Ontario Nuclear Funds Agreement and for the NFAA, or  
19 the Nuclear Fuel Waste Act Trust.

20 The financial guarantee for OPG's facility  
21 comprises of three components: segregated funds  
22 established pursuant to the ONFA between OPG and the  
23 Province of Ontario -- the CNSC has access to these funds  
24 through an Access Agreement between the CNSC, the Province  
25 of Ontario and OPG -- secondly, a trust fund for the

1 management of used fuel established pursuant to the  
2 *Nuclear Fuel Waste Act* and; thirdly, a provincial  
3 guarantee pursuant to the Provincial Guarantee Agreement  
4 between the CNSC and the Province of Ontario which came  
5 into effect on July 31<sup>st</sup>, 2003.

6 For 2006, OPG has estimated the total  
7 decommissioning cost for these facilities at \$19.509  
8 billion. As these costs are to be realized at future  
9 dates, the present value guarantee required in 2006  
10 dollars is \$7.323 billion.

11 Although there has been no change to the  
12 assumptions used to calculate the present value, the  
13 estimated costs have changed from those previously  
14 reported due to the difference in actual escalation from  
15 previously forecasted values. That is, estimated costs  
16 have risen more slowly than originally predicted,  
17 resulting in the decrease of \$162 million in the present  
18 value.

19 Currently, OPG has segregated funds valued  
20 at about \$7.193 billion in the ONFA and the NFAA Trust and  
21 the provincial guarantee which was set at \$1.51 billion in  
22 2003 for 2006 will comprise the remaining \$130 million.

23 For 2007 it is predicted that the value of  
24 the required financial guarantee will be in the order of  
25 \$7.817 billion. At that time, it is expected that the

1 ONFA and the NWFA Trust will be valued at \$8.056 billion  
2 and that there will be no requirement for the provincial  
3 guarantee.

4 CNSC staff have reviewed the annual  
5 valuation report for the ONFA funds and the NFAA Trust and  
6 reviewed OPG's annual report on decommissioning.

7 CNSC staff is satisfied that the fund  
8 accumulation has been attained and is satisfied with the  
9 information submitted by OPG.

10 With respect to the projected operational  
11 changes and the potential for impact on the value of the  
12 financial guarantee, OPG reports that the following  
13 activities, the submission of the NWMO report to the  
14 government, OPG's proposal for a deep geological  
15 repository for lone intermediate level waste, the decision  
16 to rehabilitate Bruce A and the decision to permanently  
17 shut down Units 2 and 3 at Pickering A, will not  
18 significantly change OPG's liability or the overall value  
19 of the financial guarantee.

20 The present value impact or the early  
21 shutdown of the Pickering A units has been assessed to be  
22 more than balanced by the life extensions on Units 1 and 4  
23 and also by the later shutdown for the Bruce A units as a  
24 result of rehabilitation.

25 Although accounted for in this annual

1 update, OPG will be reviewing in detail its  
2 decommissioning plans for its facilities towards the end  
3 of this year.

4 After this review cycle concludes, CNSC  
5 staff would consider that a five-year ongoing requirement  
6 for a detailed review of OPG's decommissioning plans to be  
7 acceptable, provided that any changes are properly  
8 captured in the annual review of its financial guarantees.

9 In summary, CNSC staff concludes that OPG's  
10 financial guarantee continues to be valid and in effect  
11 and that the amount of the guarantee is sufficient to meet  
12 currently projected future decommissioning costs and CNSC  
13 staff will continue to review OPG's financial guarantee on  
14 an annual basis as part of its normal compliance  
15 activities.

16 CNSC staff is recommending to only formally  
17 report to the Commission on the acceptability of OPG's  
18 financial guarantees on the renewal of each OPG licence  
19 or, if required, through a Significant Development Report.

20 Thank you and this concludes staff's  
21 presentation and I turn it back to Mr. Grant.

22 **MR. GRANT:** Thank you, Mr. Barker and Mr.  
23 Chair. The staff is available for any questions the  
24 Commission may have.

25 **THE CHAIRPERSON:** Before we do that, Mr.

1 Nash, do you have any comments?

2 **MR. NASH:** No further comment. Ken Nash.

3 **THE CHAIRPERSON:** Thank you.

4 Commission Members? Dr. Barnes.

5 **MEMBER BARNES:** Just the difference in  
6 slide 6 and 7 of staff where basically the provincial  
7 guarantee now is down to zero. So your expectation is for  
8 the foreseeable future that the provincial guarantee would  
9 pretty well stay at zero. Is that right? Until there was  
10 some substantial cost incurred in decommissioning, by  
11 which time the trust itself would presumably be at a much  
12 higher level.

13 **MR. GRANT:** Ian Grant, for the record.  
14 I'll call on Mr. Lojk to answer the  
15 question, Dr. Barnes.

16 **MR. LOJK:** Dr. Barnes is correct.

17 **MEMBER BARNES:** And the second question is,  
18 the first sentence in 4.0 on page 3, which reads "Reactor  
19 decommissioning plans are based on a planned operating  
20 life of all units of 40 years". Does this include an  
21 assumption that certain of the units are going to get  
22 refurbished or does it -- or have been refurbished?

23 **MR. LOJK:** Bob Lojk, for the record.

24 Could you repeat the reference again?

25 Sorry.

1                   **MEMBER BARNES:** Sure. It's the first  
2 sentence in section 4.0 on page 3, Reactor Decommissioning  
3 Plans and Cost Estimates. And your first sentence reads,  
4 "Reactor decommissioning plans are based on a planned  
5 operating life of all units of 40 years". My question  
6 was, is that 40 years -- does that take into account the  
7 refurbishment of some of the units or planned  
8 refurbishment?

9                   **MR. LOJK:** We're discussing now OPG's  
10 report on that. As far as I'm looking at it right now, is  
11 the existing operating life and with whatever refits are  
12 required to achieve the 40-year operating life, not a full  
13 refurbishment. OPG may want to comment from our  
14 understanding of the situation.

15                   **MR. NASH:** Ken Nash.

16                   What we've done for purposes of  
17 establishing some reference plans to allow us to cost this  
18 out and do present value calculations, we've normally  
19 assumed -- this is back in 2003 when we first established  
20 the guarantee -- that all reactors would operate for 40  
21 years. I think at that point, we recognized that some  
22 would be refurbished and operate for well beyond the 40  
23 years and some reactors would perhaps not be refurbished.  
24 Pickering 2 and 3 has turned out to be in the second  
25 category. Bruce A has turned out to be in the first

1 category.

2 So we used a nominal 40 years. I think the  
3 next time around, when we do this five-year review that  
4 staff mentioned, which will occur starting towards the end  
5 of this year, we'll probably use the latest projections of  
6 what will be and what won't be refurbished. And we've got  
7 a much clearer view now of the refurbishment program. So  
8 it's a nominal 40 years for all reactors that was used for  
9 financial planning purposes. That's not to say that we're  
10 predicting all reactors are going to last exactly 40  
11 years.

12 **MEMBER BARNES:** I understand that and  
13 correct me if I'm wrong, just from distant memory, when  
14 they were built, they were kind of like somewhere between  
15 25 and 40. Isn't that it? Or was it planned when most of  
16 these were built that their design life was 40 years, you  
17 know, that being a round number, not an absolute number?

18 **MR. NASH:** Ken Nash.

19 **MEMBER BARNES:** My point is, is this a  
20 false assumption, right, on the basis that already a  
21 number of these reactor units have gone through a  
22 refurbishment or it's been decided that they're not going  
23 to go through a refurbishment? But certainly there has  
24 been a refurbishment factor in the ones listed here and  
25 I'm trying to find out whether that refurbishment factor,



1           which would extend the life of them, should really affect  
2           this assumption that their life is 40 years?

3                       **THE CHAIRPERSON:** Mr. Grant, would you like  
4           to comment?

5                       **MR. GRANT:** Thank you, Mr. Chair. For the  
6           record, Ian Grant.

7                       At the time of original licensing, there  
8           was a nominal assumption that a unit lifetime would be of  
9           the order of 30 to 40 years. The staff report notes that  
10          there have been some variations in decisions to refurbish  
11          units and to shut down some units and the comment in the  
12          report in section 4.0 is that "the present value impact on  
13          the financial guarantee caused by the early shut-down of  
14          Pickering 2 and 3 has been assessed to be balanced by the  
15          life extension of other units".

16                      And we've gone on to -- so our estimate is  
17          that the changes that have taken place kind of net out and  
18          that there's a commitment to carry out a further detailed  
19          review, at which time Mr. Nash has noted that the actual -  
20          - the latest plans will be taken into account in that  
21          review. I hope that explains the situation.

22                      **THE CHAIRPERSON:** Dr. McDill.

23                      **MEMBER McDILL:** Staff is now proposing five  
24          years. When would we hear about this again? We just  
25          heard Mr. Nash say something about five years and we've

1       been hearing annually.

2                   **MR. LOJK:** Perhaps we weren't clear on what  
3       staff's expectations were. Right now, OPG is unique in  
4       being asked to report on a yearly basis, provide not only  
5       a report, which is correct, on a yearly basis but also to  
6       -- that we would have to bring in front of the Commission  
7       a report at the meeting on OPG's financial guarantee. We  
8       don't make that requirement of other licensees. It  
9       happens to be unique. It rolls as a comment made at a  
10      Commission hearing.

11                   What staff is proposing that we would,  
12      rather than report, that we will still obtain the yearly  
13      reports from OPG. We would assess the yearly report from  
14      OPG, but only report to you as an extraordinary item, if  
15      there are problems with the report. And then we would  
16      continue to report on the adequacy of the financial  
17      guarantees at the renewal of each licence for OPG, for  
18      each facility, rather than as a whole.

19                   Furthermore, we would report to you on the  
20      adequacy of the five-year re-think that OPG will be doing  
21      shortly of their whole facility, where they are basically  
22      taking all their estimates for square one. We would  
23      review them. We would hire a consultant who is an expert  
24      in finances, an expert in decommissioning costs and re-  
25      baseline. What we're doing now essentially, we're taking

1 -- we're just looking to see whether there are any  
2 variances from the original. Rather than doing a full  
3 detailed technical review from square one, we're only  
4 looking at the variances from the previous reports.

5 **MS. McDILL:** Thank you.

6 **THE CHAIRPERSON:** Dr. Dosman.

7 **MEMBER DOSMAN:** Thank you, Mr. Chair.

8 I'd just like to inquire -- I think of Mr.  
9 Nash or perhaps CNSC. I take it, if I've got it right,  
10 that when a unit is refurbished, the likelihood of it  
11 requiring decommissioning goes down and the estimated  
12 guarantee goes down. When a unit is taken out of  
13 production, the likelihood of decommissioning becomes  
14 greater, so the financial guarantee goes up. Do I have it  
15 correctly, Mr. Nash? Or is it the other way around?

16 **MR. NASH:** Ken Nash.

17 No, you've got it the right way around.  
18 That's perfectly correct.

19 **MEMBER DOSMAN:** And so as "A" follows "B",  
20 for example, if Bruce is refurbishing units or Pickering,  
21 the financial guarantee goes down and that's one of the  
22 reasons for it going down, presumably?

23 **MR. NASH:** Yes, that's correct. For  
24 instance, our working assumption is that when any of our  
25 preliminary decommissioning plans, a reactor shuts down,

1 put in safe store and then on a four unit basis, the four  
2 units would start to be dismantled 30 years after the shut  
3 down.

4 If the reactors are rehabilitated, that  
5 date when they have to be dismantled moves further into  
6 the future. Whilst the overall cost would stay the same,  
7 the present value of that cost would tend to go down. So  
8 hence the need for a guarantee for that unit would tend to  
9 go down.

10 **MEMBER DOSMAN:** Thank you. I take it then,  
11 that at the moment, the trust is growing, the principal in  
12 the trust is increasing somewhat more rapidly than the  
13 projected guarantee required.

14 **MR. NASH:** Yes, that's correct. When we  
15 first established the guarantee a number of years ago,  
16 2003, the value of the trust was \$1.5 billion short of the  
17 total guarantee. We needed a promise to renew our  
18 guarantee from the provincial government to cover the  
19 difference.

20 When we complete the next five-year review,  
21 we anticipate that we have to redo all the cost estimates,  
22 re-baseline the cost estimates, and look at a wide range  
23 of factors. We do anticipate that guarantee will not be  
24 needed, provincial guarantee, because the value of the  
25 trust will have grown in combination of the performance of

1 the trust and also the additional contributions we've made  
2 over that period. We continue to make \$454 million  
3 contribution this year and similar numbers planned for  
4 next year.

5 **MEMBER DOSMAN:** Thank you very kindly.

6 **THE CHAIRPERSON:** Just one observation and  
7 I think I'm correct also for following what Dr. Dosman  
8 said. Money cannot be taken from the decommissioning fund  
9 for refurbishment, can it or it can't be?

10 **MR. NASH:** No, absolutely not. The Ontario  
11 Nuclear Funds Agreement strictly prohibits that and there  
12 are trustees, there are procedures that only allow these  
13 funds to be taken out under certain conditions and those  
14 conditions must meet the requirements of -- it must be for  
15 waste management. It must offer for decommissioning in  
16 accordance with the plan on which the trust was  
17 established. So it can't be used for any other purpose.

18 **THE CHAIRPERSON:** Thank you. Any other  
19 questions from the Commission?

20 If not, that concludes that. Now, we will  
21 go to -- if I can find where I am here now -- we will now  
22 move to CMD 05-M23 and the next item on the agenda -- oh,  
23 pardon me, it's to replace 05-M23 and the new one is CMD  
24 06-M24 -- I apologize -- concerning the need to replace as  
25 mentioned and I would ask Mr. Ken Pereira, Executive Vice-

1 President of Operations, to come forward.

2 **06-M24**

3 **Need to replace CMD 05-M23**

4 **to respond to operational**

5 **needs and changes at the**

6 **CNSC**

7 **THE CHAIRPERSON:** Good afternoon, Mr.

8 Pereira, and would you like to present CMD 06-M24?

9 **MR. PEREIRA:** Thank you, Mr. Chair and  
10 Members of the Commission. For the record, my name is Ken  
11 Pereira. I am the Executive Vice-President of the  
12 Operations Branch of the CNSC.

13 Commission Member Document 06-M24 is an  
14 update on earlier CMDs on the authorization of designated  
15 officers. This CMD is being tabled today to reflect  
16 recent organizational and divisional name changes in the  
17 CNSC Operations Branch, as well as to align certain  
18 authorities with operational requirements.

19 It proposes additional authorization to  
20 address operational requirements in response to emergency  
21 situations. The bold text in Appendix "A" in the CMD  
22 highlights this particular change. It is recommended that  
23 the Commission make the designations described by title of  
24 office in the designated officers' list presented in CMD  
25 06-M24.

1                   Should the Commission accept this  
2                   recommendation, each proposed designated officer will be  
3                   provided with a certificate bearing both the name of the  
4                   person and the corresponding position as listed in the  
5                   CMD.

6                   This concludes my remarks. CNSC staff  
7                   would be pleased to provide any clarification that the  
8                   Commission Members may desire. Thank you.

9                   **THE CHAIRPERSON:** Thank you, Mr. Pereira.  
10                  Questions. Dr. Dosman, do you have any  
11                  questions?

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

13                  I take it, Mr. Pereira, that the change in  
14                  the designations and titles doesn't necessarily mean any  
15                  change in reporting structures that might affect the  
16                  regulatory process?

17                  **MR. PEREIRA:** No, not really, other than  
18                  recent clarification on the role of designated officers  
19                  with respect to decisions taken by the Commission and  
20                  those changes are being implemented with the use of panels  
21                  and so on. But the primary function of designated  
22                  officers, the bulk of the work done by designated  
23                  officers, relates to licensing decisions on regulatory  
24                  activities that are carried out for a number of other  
25                  licences, the use of nuclear substances and so on. This

1 is the bulk of the work done by the designated officers.

2 **MEMBER DOSMAN:** Thank you.

3 **THE CHAIRPERSON:** Any other Commission  
4 comments?

5 Dr. McDill, do you have anything?

6 **MEMBER MCDILL:** There are only two in bold  
7 apart from a few titles; is that correct? The Emergency  
8 Management Programs Division in both cases.

9 **MR. PEREIRA:** That is correct. That is the  
10 only new function added to the role of designated  
11 officers. The other changes are changes -- just the  
12 reassignment of the same functions to different  
13 organizational units and some of the organizational  
14 changes have arisen because the organization has grown in  
15 recent months and we've had to reorganize to provide  
16 effective management of our regulatory program.

17 **MEMBER MCDILL:** So in rough numbers, how  
18 many -- what's the net change in the number of designated  
19 officers?

20 **MR. PEREIRA:** I'll ask Mr. Bouchard if he  
21 knows the number exactly.

22 **MR. BOUCHARD:** For the record, André  
23 Bouchard, Acting Director of the Regulatory Program  
24 Improvement Division.

25 There has been an estimate of about seven



1 new directors -- divisions actually created during the  
2 year '05-'06 to these current ones that are treated within  
3 this CMD. So therefore, we're looking at seven new  
4 divisions and designated officer corresponding with them.

5 **MEMBER McDILL:** Thank you.

6 **THE CHAIRPERSON:** Thank you very much, Mr.  
7 Pereira and staff.

8 This brings an end to the public meeting of  
9 the Commission. I refer Members to M25 concerning the  
10 next Commission hearing meeting which will be held on May  
11 19<sup>th</sup>, 2006. I thank you all for your attendance and I  
12 move adjournment.

13 --- Upon adjourning at 4:40 p.m.

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