

1       **General Electric Canada Inc.:**  
2       **Application for the renewal of the**  
3       **operating licence for the Toronto**  
4       **nuclear fuel facility**

5  
6       **05-H24.1 / 05-H24.1A**

7       **Oral presentation by**

8       **General Electric Canada Inc.**

9                   **MR. MASON:** For the record, Peter Mason.

10                   Thank you, Madam President. Good morning,  
11                   Members of the Commission.

12                   I do have a short presentation to give you  
13                   an overview of the General Electric company, its extensive  
14                   EHS policies and procedures and systems, and then talk a  
15                   little bit about the facilities.

16                   As Madam President pointed out, it is a  
17                   common presentation, but we do have specific information  
18                   for each site. So I will delay the specific data for the  
19                   Peterborough site until that particular hearing.

20                   Earlier this year, the General Electric  
21                   Company, which is a global \$160 billion company,  
22                   restructured its organization into six fundamental  
23                   businesses, and you can see there the GE Healthcare.  
24                   That's GE Capital arm which constituted 45 per cent of its  
25                   revenues, was split into two organizations, and then one

1       which you may well recognize, the NBC and Universal  
2       Studios is our media and communications arm. And the one  
3       at the bottom, GE Industrial was really a consolidation  
4       of, shall we say, our legacy businesses like lighting,  
5       appliances, motors, industrial systems, that type of  
6       thing.

7                 The business that we are in is called GE  
8       Infrastructure. As you can see on the expanded part of  
9       the slide there, the infrastructure business covers the  
10      oil and gas industry, the rail transportation business,  
11      aircraft engines and water with water treatment, water  
12      chemistry, that type of thing.

13                The part of the business that we're in is  
14      GE Energy, formerly known as Power Systems, and there, GE  
15      has a broad portfolio of products for the power system or  
16      energy business, everything from solar, wind, right  
17      through to nuclear, and we are part of that nuclear  
18      segment.

19                If we now turn to the next page and look at  
20      the Canadian nuclear operation, as I said, the General  
21      Electric company is a \$160 billion business. We are a \$60  
22      million business. So you can get the perspective of where  
23      we are.

24                You can see our locations. The Toronto  
25      site is where we manufacture precision natural uranium

1 pellets. In Peterborough, we take those pellets and the  
2 components that we manufacture in Arnprior and assemble  
3 them into fuel bundles. The fuel bundle that you see a  
4 little diagram of there is about 533 millimetres long. It  
5 comes in either a 28 or 37-element bundle, and it's  
6 equivalent -- energy-equivalent to about 500 tonnes of  
7 coal. We make about 8,000 of those a year.

8 You can see on the map there some of the  
9 customers that we serve.

10 The next slide, I thought it was important  
11 to outline to the Commission the commitment, the very  
12 serious commitment, of the General Electric company  
13 globally to environmental health and safety. The two fine  
14 gentlemen that you can see up there on the right-hand side  
15 is Jeff Imelt, our CEO, and on the left-hand side, Steve  
16 Ramsay, our Vice-President of EHS. In fact, Steve has  
17 been responsible over the last 15 years for establishing  
18 many of the environmental health and standards and the  
19 rigour with which the company tracks, implements and  
20 monitors its EHS performance.

21 You can read some of the items on there,  
22 but I think it's important to perhaps point out that the  
23 company is committed to full compliance with environmental  
24 laws and regulations. We apply world-class standards for  
25 compliance and safety no matter where we do business.

1           If you think, we have 9,000 PNLs around the  
2 world with over 300,000 employees, it's important that we  
3 drive the same sort of standards throughout the world.

4           In my experience with the General Electric  
5 company, managers can be forgiven for not making the  
6 numbers or making poor business decisions, but what they  
7 are not forgiven for is an integrity violation or a  
8 compliance violation. So one thing that we learn very  
9 quickly is that this is top of the agenda in terms of GE  
10 management.

11           If I go into some of the comprehensive  
12 systems that we have for managing Environmental Health &  
13 Safety within GE, it starts off with those very policies  
14 and goals that I talked about in the previous slide and  
15 many of the policies then get reviewed in terms of  
16 country-specific requirements.

17           We then have a very detailed Health and  
18 Safety and also Environmental -- what we call Framework --  
19 and it indeed a framework by which anybody coming into the  
20 company can quickly understand and be involved in and  
21 where we acquire companies we can very quickly implement a  
22 very standard framework of Environmental, Health & Safety  
23 management.

24           There is training associated with those  
25 elements and I will be showing in detail those elements in

1 a later slide.

2 We also, I would say, have computerized or  
3 digitized most of our monitoring and tracking systems as  
4 well as our training programs and we have what we call  
5 "digital cockpits" where we have key monitors that can be  
6 quickly seen by management and employees.

7 There are regular audits around the company  
8 and, again, I have a better slide to indicate that. What  
9 I would like to point out is that every site in GE strives  
10 for either VPP recognition if it's in the U.S. or what we  
11 call Global Star evaluation if it's outside of the U.S. I  
12 am pleased to say that in 2002 all three sites in Canada  
13 received Global Star recognition and we have maintained  
14 that; in fact, built on it.

15 And then we have our regular basis reviews.  
16 On an annual basis, I have to present a complete review of  
17 our EHS performance to Steve Ramsey as closing the circle  
18 in terms of our management system. It's a very effective  
19 process and I have seen it in operation in a number of  
20 businesses.

21 Some of the -- I won't go into these in  
22 detail but these are just some examples of the computer  
23 tools that we have available to our employees and to  
24 management to track compliance, to track the training of  
25 their employees. It's linked both to our learning portal

1 and also to our HR database so that not only can we track  
2 that the training has been done but also who requires the  
3 training and when it needs to be updated.

4 We also have a really important audit  
5 tracking system. We have a whole range of audits that  
6 take place on regular intervals. The findings of those  
7 audits get entered into the system and we have a company-  
8 wide goal where 90 per cent of regulatory findings should  
9 be closed in less than 30 days. Certainly, all findings  
10 have to be closed within 180 days. Sometimes,  
11 technically, it's not possible within 30 days so it does  
12 go over.

13 But this tracking tool gives management the  
14 visibility of tasks that have to be completed, who is  
15 responsible, what the status is, et cetera; a very  
16 effective tool.

17 The next slide is about the Health & Safety  
18 and Environmental Frameworks. I mentioned earlier that  
19 this is really the foundation of what we put in place in  
20 every facility and what we get reviewed on. You can see  
21 through some of the titles -- can give you an idea of the  
22 range of items that we have to address in terms of both  
23 health and safety and environment, everything from  
24 employee involvement through to very detailed lockout/tag-  
25 out procedures and implementation.

1                   What happens here is that every facility is  
2                   evaluated on a regular basis and at a maximum score of 21  
3                   points to achieve VPP or global status the score has to be  
4                   over 19 points out of the 21.

5                   The next slide is peculiar to our own  
6                   business unit and I won't read through all of it, but I  
7                   think it important to read the highlight of our EHS  
8                   mission:

9                                   "A primary goal of GE Canada nuclear  
10                                   products is to eliminate or control  
11                                   both known and potential environmental  
12                                   safety and health hazards which could  
13                                   impact our employees and the  
14                                   communities in which they live. In  
15                                   order to do so we must adhere to the  
16                                   following..."

17                   And there we layout for the benefit of our  
18                   employees what we are trying to do but, basically, it is  
19                   really to get across the message that although it's  
20                   management's job to facilitate and drive Environmental  
21                   Health & Safety, it is every employee's responsibility and  
22                   part of their job to strive to improve the health and  
23                   safety environment and also our environmental management  
24                   as part of their day-to-day jobs.

25                   I am pleased to say that we have been very

1       successful in engaging all our employees in participating  
2       in that. I recall our review last year, our mid-term  
3       review, and I explained to you some of the cultural  
4       changes we were initiating to facilitate the involvement  
5       of employees in that goal.

6                       I think it is worth explaining our  
7       organization. Because of the size of General Electric we  
8       have a matrix management organization based on a global  
9       business and a country management.

10                      The President of GE Nuclear is based in the  
11       U.S., Andrew White, and I report directly to him. Also  
12       reporting to him is the Manager of Environmental Health &  
13       Safety for all of GE Nuclear's facilities around the  
14       world. That individual has a direct, or I should say a  
15       dotted line to our Manager of Environmental Health &  
16       Safety Quality, Mr. Henry Hann, who is on my right-hand  
17       side here today.

18                      Also, from a country-management  
19       perspective, because it is the legal entity, we have a  
20       Vice-President of Environmental, Health & Safety for all  
21       of GE Canada. So we have a dotted line from that person  
22       through to Henry as well. That's a good balance of the  
23       Canadian perspective versus the global perspective.

24                      Henry has the functional responsibility for  
25       EHS in all of our sites.



1                   This year, we also implemented a new  
2                   position called "Regulatory Compliance Leader" and that's  
3                   the person on my left, Paul Desiri. Paul is really a  
4                   source of expertise for the entire organization in terms  
5                   of regulatory compliance.

6                   Then, at the bottom of the page, you can  
7                   see are various sites. In addition to our joint Health &  
8                   Safety Committees which are very active, we also have our  
9                   ALARA committees which I think, as you will see from the  
10                  results as we talk to our specific sites, we have been  
11                  fairly successful over the years to continuously improve  
12                  our processes.

13                  In terms of auditing, most of the people on  
14                  that organization are involved in some level of auditing.  
15                  We have at the bottom of the pyramid there the facility  
16                  inspection involving everyone from shop floor employees  
17                  right through to myself.

18                  We have some business audits. We have  
19                  business level audits where we have a team from our  
20                  business come through and audit our difference processes;  
21                  obviously, our government inspections.

22                  Finally, we also have a corporate review.  
23                  This is quite an intensive review where experts from  
24                  various parts of the General Electric Company are brought  
25                  together with the head office leadership and they do an

1 in-depth audit of our facilities.

2 If you now turn to the Toronto site-  
3 specific information, our Toronto plant, as I mentioned  
4 earlier, we make precision dimension pellets. We take  
5 natural uranium. We compress it. We sinter it and  
6 increase the density by about tenfold. We then grind it  
7 into a precision pellet which then at a later stage gets  
8 inserted into a zirconium tube.

9 There are approximately 50 employees there.  
10 Actually, it's 46 at the moment, and we run a three shift,  
11 five day a week operation. The plant was built in 1907.

12 **MR. MASON:** We started producing these  
13 pellets in the plant in the early 1960's, and I think we  
14 have an excellent record there with our community during  
15 that time.

16 If we take a look at the next slide which  
17 deals with radiation dose, our ALARA committee has over  
18 recent years made a 50 percent reduction in exposure to  
19 our employees. There's some fluctuation there that you  
20 can see, but essentially a 50 percent reduction, and we  
21 continue to work on ideas to improve our process.

22 In terms of our environmental measures, if  
23 we look at air emissions, if we take the derived emission  
24 limit we are about .04 per cent of that limit as far as  
25 air emissions are concerned, and as far as the water

1 effluent is concerned .0015 per cent of the limit.

2 You can see some fluctuation there in terms  
3 of the air releases; there was a volume increase in `01 --  
4 well, right through to `03, actually, but we were able to  
5 -- as we saw it rise we were able to control that.

6 The water releases, the increase there, we  
7 implemented a process to reduce solid waste. We then went  
8 back and further improved our water treatment facility and  
9 you can see our estimated release for this year is going  
10 to be a substantial reduction over the previous two years.  
11 So again a continuous improvement in our processes.

12 As far as our injury data is concerned I'm  
13 really pleased with the performance that we have had  
14 there. At the beginning of 2004 we had a communication  
15 campaign with our employees. We really challenged them to  
16 zero (0) OSHA recordable injuries in our manufacturing  
17 sites.

18 Our feeling, our philosophy, was that in a  
19 modern manufacturing facility there is no excuse for  
20 injuries, and we should all work to achieve that. We have  
21 had one OSHA reportable in 2004, and one in 2005, but I  
22 would like to quickly point out that neither of those  
23 injuries was on the shop floor.

24 The one in 2004 was a salaried person that  
25 slipped during an ice storm out in the car park and hurt

1 her wrist, and the one this year was a salaried employee  
2 who cut his finger and had one stitch in the cut. But we  
3 have had no injuries in the manufacturing area since 2003  
4 at any of our sites, so I'm very pleased with that  
5 performance.

6 In terms of lost time we have had no lost  
7 time injuries in the last two years.

8 I think I will halt there. I'll leave the  
9 Peterborough site-specific information to there, but I  
10 would just like to reinforce what I've said in that I  
11 believe that we have engaged all of our employees to  
12 embrace an environment of compliance, and also an  
13 environment of continuous improvement both in safety;  
14 exposure to hazards; processes and procedures and, indeed,  
15 the quality of our product.

16 I think it's worth pointing out that in 15  
17 years there has been no defect in our fuel in any reactor  
18 that we have supplied fuel to, and I think that is a  
19 tremendous record considering we manufacture approximately  
20 8,000 bundles per year.

21 We are proud of our facilities, of our  
22 professionalism and the role that we play in the  
23 communities that we exist, and we believe that we are  
24 worthy of re-licensing.

25 Thank you.

1                   **THE CHAIRPERSON:** Thank you very much, sir.

2                   We'll move now then to the presentation  
3 from CNSC staff, as outlined in the CMD document 05-H24,  
4 and I'll turn to Mr. Barclay Howden who is the DG  
5 responsible for this area. Mr. Howden, you have the  
6 floor.

7

8                   **05-H24**

9                   **Oral Presentation by CNSC staff**

10                  **MR. HOWDEN:** Thank you.

11                  Madam Chair, members of the Commission, for  
12 the record my name is Barclay Howden. I'm the Director  
13 General of the Directorate of Nuclear Cycling Facilities  
14 Regulation. With me today is Ms. Adriana Nicic, Director  
15 of the Organization and Management Systems Division; Mr  
16 David Werry, Project Officer in the Processing Facilities  
17 and Technical Support Division, and the rest of our  
18 licensing teams for this facility.

19                  CNSC staff have reviewed the operation of  
20 General Electric's Toronto facility, and the application  
21 from GE Toronto to renew the facilities operating licence.

22                  I will now ask Mr. Werry to continue with  
23 our recommendations. Thank you.

24                  **MR. WERRY:** Good morning. For the record,  
25 my name is David Werry.

1                   CNSC staff's assessment of the licence  
2                   renewal application is documented in CMD 05-H24. This  
3                   includes a recommendation that the Commission renew the  
4                   proposed processing facility licence for a period of five  
5                   years.

6                   Our presentation will include the following  
7                   sections: A brief overview of the facility will be  
8                   presented, a review of General Electric's application to  
9                   renew the licence -- General Electric will be referred to  
10                  as GE or GE Toronto for this presentation -- a discussion  
11                  on GE's programs and performance during the current  
12                  licensing period; a summary of additional items including  
13                  decommission planning, financial guarantee, and the  
14                  *Canadian Environmental Assessment Act*, the overall  
15                  conclusions from the reviews performed and, finally,  
16                  recommendations from the staff to the Commission.

17                  The uranium powder conversion facility that  
18                  GE operates is located in Toronto, Ontario. The facility  
19                  process uranium oxide powder to produce uranium oxide  
20                  pellets used in CANDU reactors. There has been one  
21                  amendment to the licence since the renewal in 2000. This  
22                  was outlined in CMD 05-H24.

23                  The facility has been ranked by CNSC staff  
24                  as being low to moderate. The risk associated with the  
25                  use of hazardous chemicals, and the safety analysis

1 demonstrates that the risk to the workers, the environment  
2 and the public for normal operations and accidents in  
3 areas are reasonable.

4 General Electric has applied to renew its  
5 Fuel Fabricating Operating licence. The Application was  
6 provided in a timely fashion and CNSC's staff's review of  
7 the Application found that it meets the applications  
8 requirements described in the applicable regulations. The  
9 current licence expires on December 31<sup>st</sup>, 2005, and GE has  
10 requested that the licence -- that the renewed licence be  
11 issued for a period of five years.

12 General Electric is required to have  
13 various programs in place with respect to the operation of  
14 the nuclear facility. CNSC staff have evaluated various  
15 safety areas. They are outlined on the slide and in CMD  
16 05-H24.

17 The overall assessment ratings for the  
18 various programs are that they meet requirements, with the  
19 exception of the Quality Management Program which is yet  
20 to be fully documented and assessed. CNSC staff expects  
21 this program to be fully documented later this year. The  
22 latest round of revisions is anticipated by the end of  
23 September, and an onsite compliance audit will follow the  
24 document review. We anticipate the audit to be completed  
25 in this fiscal year.

1                   Note that the information on the security  
2 program is prescribed information, and is found in CMD 05-  
3 H24.A.

4                   GE has demonstrated improvements and  
5 programs, and their implementation in several areas during  
6 the licensing period. The areas of improvement are  
7 radiation protection, environmental protection and the  
8 Public Information Program.

9                   Continuing on to the topic of the  
10 licensee's performance, CNSC staff has carried out a  
11 review of GE's performance with respect to the operation  
12 of the facility during the current licensed term. The  
13 review comprised of routine inspections that are carried  
14 out quarterly, several additional inspections including  
15 emergency preparedness, radiation protection, quality  
16 assurance, fire protection, and physical security, and  
17 also a review of annual reports.

18                   The inspection found some minor deviations  
19 from expectations but were such not to pose an  
20 unreasonable risk to the health and safety of persons, to  
21 the environment, nor to national security. There are  
22 several indicators that the facility has been operated  
23 safely during the licensing period. The radiation doses  
24 to the workers and to the public, along with the  
25 radioactive emissions to the environment are well below



1 the regulatory limits, and there have been no safety-  
2 significant events reported during the licensing term.

3 CNSC staff concludes that the risk to the  
4 public and workers over the current licence term has been  
5 low, and the overall performance of GE meets requirements.

6 The preliminary decommissioning plan was  
7 accepted by staff, and a financial guarantee is in place.

8 General Electric has requested a five-year  
9 licence period with the renewal of the licence. Based on  
10 the information that has been outlined in CMD 05-H24,  
11 staff is recommending a five-year licence period.

12 CNSC staff proposes that a midterm interim  
13 report be provided to the Commission midway through the  
14 licence period. The Commission will also be informed if  
15 any situation develops that could impair GE's ability to  
16 meet its obligations with respect to the protection of  
17 health and safety; and the environment; the maintenance of  
18 security; and compliance with international obligations.

19 CNSC staff concludes that an environmental  
20 assessment pursuant to the *Canadian Environmental*  
21 *Assessment Act* is not required for the renewal of its  
22 licence, and that General Electric is qualified to carry -  
23 - carry on the licensed activities that the proposed  
24 licence will authorize.

25 Further, GE has made adequate provisions

1 for the protection of the environment; the health and  
2 safety of persons; and the maintenance of national  
3 security; and measures required to implement international  
4 obligations to which Canada has agreed.

5 In addition, CNSC staff also concludes that  
6 General Electric is meeting regulatory requirements, and  
7 although there is some deviation from CNSC staff's  
8 expectations on certain programs the deviations do not  
9 represent an unreasonable risk to the environment; to the  
10 health and safety of persons; and to national security.

11 Finally, CNSC staff recommends that the  
12 Commission accept CNSC staff's assessment that GE is  
13 qualified to carry on the activities that the licence will  
14 authorize and will make adequate provisions to carry on  
15 the activities. That the commission accept CNSC staff's  
16 assessment that environmental assessment pursuant to the  
17 *Canadian Environmental Assessment Act* is not required for  
18 the renewal of the licence, and approve the renewal of the  
19 operating licence for a period of five years valid to  
20 December 31, 2010. This concludes this staff's  
21 presentation.

22 **MR. HOWDEN:** Madam Chair, CNSC staff is  
23 prepared to respond to questions. Thank you.

24 **THE CHAIRPERSON:** Thank you very much, Mr.  
25 Howden. And I would like to start with Mr. Graham please.

1                   **MEMBER GRAHAM:** Thank you and good morning.

2                   A couple of questions I have with regard to  
3                   the licence. In reading the documents, you talk about the  
4                   licence has;

5                                   *"The facilities is currently able to*  
6                                   *produce up to 150 tons per month."*

7                   That is of pellets; how much powder is  
8                   permitted to be on site in production, or is this -- does  
9                   this mean powder or is this just the pellets? Am I clear?  
10                  What I am saying is, the powder is brought in and is  
11                  manufactured into pellets, and the licence is to produce  
12                  to produce 150 tons of pellets a month. I am wondering  
13                  how much powder can be on site at any known time?

14                  **MR. MASON:** That amount would -- that 150  
15                  tons is the total amount that would be allowed.

16                  **MEMBER GRAHAM:** And just to clarify how the  
17                  process goes, the pellets are ground down and there is  
18                  powder produced from the grinding, and so on. Is that  
19                  reused or is that -- is the powder all -- inevitably at  
20                  the end reaches -- is put into pellets even though the  
21                  ground materials and so on is reused, or what is done with  
22                  the excess powder?

23                  **THE CHAIRPERSON:** That should be a question  
24                  to the licensee.

25                  **MR. MASON:** For the record, Peter Mason.

1           The ground powder which actually comes out  
2           in a slurry form from the grinder is recovered, returned  
3           to chemical and recycled.

4           **MEMBER GRAHAM:** And to clarify, the 150 ton  
5           permit on the licence is for pellets, so you could have  
6           more in excess, with slurry and pellets you could have  
7           more than 150 tons per month of material or not?

8           **MR. DESIRI:** For the record Paul Desiri,  
9           Regulatory Compliance Leader.

10           The 150 tons per month is the value that is  
11           applied to what is produced in pellet form.

12           **MEMBER GRAHAM:** So just for clarification,  
13           roughly how much of the powder would you have on site all  
14           the time of raw material before it goes in the pellets?  
15           Is there a licence condition on that? That is maybe the  
16           CNSC staff.

17           **MR. WERRY:** David Werry for the record.  
18           We'll come back to the Commission with  
19           that.

20           **MEMBER GRAHAM:** Thank you. Another  
21           question; there is a considerable amount of water used, I  
22           believe, in this fabrication, and so on. How is that water  
23           handled and treated before it goes into the regular sewer  
24           systems, and so on?

25           **MR. MASON:** For the record, Peter Mason.

1 In actual fact, it is not a great deal of water. The only  
2 place we use water is for cooling of the grinding, but  
3 that water is treated, first of all, in a centrifuge to  
4 remove the uranium. The water is then collected in  
5 storage tanks together with other wastewater in the  
6 building. The water is settled. It is then flocculated  
7 to remove as many particles as possible. It is then  
8 tested, and only then when we verify that it is below  
9 acceptable limits to put into the sanitary sewer, we  
10 discharge it to the sanitary.

11 **MEMBER GRAHAM:** Another question I have  
12 with regard to fire. Sprinkler systems if they were  
13 activated and so on; where does the water from the  
14 sprinkler systems, where would they go? Would they go  
15 into floor drains, or would they go into the sanitary  
16 sewage system, or would they retreat it the same way?

17 **MR. DESIRI:** For the record, Paul Desiri.

18 The water would go down to the basement and  
19 that -- that area is -- would allow the water to rise up  
20 until the window well level. I don't have the figure in  
21 front of me of how much water that can hold; I could get  
22 back to the Commission on that.

23 **MEMBER GRAHAM:** But in emergency  
24 preparedness, in the case of fire and so on, has that  
25 scenario been taken through to how that water then would

1 be treated afterwards, and so on?

2 **MR. DESIRI:** For the record, Paul Desiri.

3 That water would be kept and then  
4 reintroduced into our water treatment system that Mr.  
5 Mason was talking about.

6 **MEMBER GRAHAM:** And is that water treatment  
7 system also in the basement or is that somewhere else that  
8 would not be affected by a flood that would take you to  
9 the window wells?

10 **MR. DESIRI:** For the record, Paul Desiri.

11 It is in the basement. The analysis we  
12 have is that we would still have -- we would be able to  
13 operate the system with three feet of water.

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

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

16 I would just like to ask management on the  
17 issue of quality management documentation, and the  
18 presentation by CNSC staff was that this was not fully  
19 documented, and I was just wondering what progress the  
20 company was making in fully documenting the quality  
21 management procedures.

22 **MR. MASON:** For the record, Peter Mason.

23 My understanding that what was missing was  
24 some of the descriptions, and that should be completed by  
25 the end of October.

1                   **MEMBER GRAHAM:** May I ask CNSC staff if  
2 staff is satisfied that this documentation will be  
3 completed?

4                   **MR. WERRY:** David Werry, for the record.  
5                   CNSC staff is satisfied that we are making  
6 progress; we have had a number of rounds of discussion  
7 with the QA leaders, and our own QA specialists, and we  
8 are at the point where we are just looking at the latest  
9 round or the final round of submissions to be available  
10 shortly.

11                   **MEMBER GRAHAM:** (inaudible) that you fully  
12 expect that -- I am sorry, there is no specific  
13 bottlenecks; that you fully expect that this documentation  
14 will be completed?

15                   **MR. WERRY:** David Werry for the record.  
16                   The answer is yes.

17                   **MEMBER GRAHAM:** I would just like to go on  
18 and ask staff on the issue of extremity dose, referring to  
19 Table 3 on the CMDH-24. The extremity dose for the new  
20 personnel, and I wonder whether staff could comment on  
21 your views as to this level of extremity dose in newly  
22 employed workers, and whether or not there is a training  
23 issue here that might be put in place to reduce this type  
24 of dose.

25                   **THE CHAIRPERSON:** I think there may be a

1 need to explain the "new" as in "new staff". It is  
2 nuclear energy worker, but with that context I will turn  
3 back to the staff.

4 **MEMBER GRAHAM:** Thank you for that  
5 explanation, Madam Chair.

6 **MR. HOWDEN:** I am going to ask Mr. Kevin  
7 Bundy, Radiation Protection Specialist, to respond to that  
8 question.

9 **MR. BUNDY:** Kevin Bundy, Radiation  
10 Protection Division.

11 Those exposures to the extremity are fairly  
12 consistent with that type of work, and they are well below  
13 the limits. So I would be finding this acceptable.

14 **MEMBER GRAHAM:** I wonder if I might ask the  
15 company if you are satisfied with these levels of the  
16 highest extremity dose in these workers, and whether or  
17 not there is any move to try and reduce those levels?

18 **MR. MASON:** For the record, Peter Mason.

19 ...with these levels of the highest  
20 extremity dose in these workers and whether or not there  
21 is any move to try and reduce those levels?

22 **MR. MASON:** For the record, Peter Mason.

23 The limit is 500 milliSieverts per year and  
24 we are well below it, but we are never satisfied, I think.  
25 For continuous improvement, in particular driven by our



1 ALARA committee, we are always looking at ways to reduce  
2 exposure. In this particular incidence, it really occurs  
3 with our workers that manually stack the pellets into rows  
4 and so there, exposed there.

5 And we currently have a project on the  
6 table to try and eliminate or, sorry, reduce the amount of  
7 exposure that they have within their working environment  
8 during their eight hours of work. So, it is an ongoing  
9 continuous improvement process.

10 **MEMBER DOSMAN:** Is there no way to have  
11 some type of automated stacking for this type of activity?

12 **MR. MASON:** For the record, Peter Mason.

13 I suppose one could theoretically come up  
14 with one, but the reality is that the human brain and eye  
15 coordination is superior to robotic equipment in terms of  
16 multiple selection of pellets and stacking them into  
17 appropriate blanks. So, at this stage, there is no plan  
18 to eliminate those jobs.

19 **MEMBER DOSMAN:** In their presentation,  
20 staff referred to, I might say "some minor deviations"  
21 from what you might expect and I am just wondering whether  
22 staff would like to enlarge on what some of these minor  
23 deviations might be.

24 **MR. WERRY:** David Werry, for the record.

25 The type of things that we have found or

1 noted when we have been onsite have been, for example, in  
2 one area a door requires to be closed, we have noticed  
3 that the door has remained opened while individuals have  
4 gone through.

5 Similarly, on a return through that area we  
6 found the door to be shut where -- as required by the  
7 regulations and the operating practice. We have noted  
8 that, we have discussed that with the licensee and they  
9 have made an action and followed up with a training effect  
10 and another notice to their staff.

11 Similarly, the type of thing that we looked  
12 at is where there might be an improvement to exposures in  
13 terms of how they handle things. They have been -- they  
14 have addressed that requirement and with documentation  
15 through their ALARA Committee and they have tried to  
16 reduce their exposures.

17 **MEMBER DOSMAN:** I am wondering, Madam  
18 Chair, if I might ask the Company to comment on these,  
19 albeit minor, deviations?

20 **MR. MASON:** For the record, Peter Mason.

21 I think in any manufacturing process -- or  
22 certainly I have found in my auditing experience that you  
23 can walk around the same facility a hundred times and you  
24 will find a hundred things, one each time possibly. In  
25 fact, I do monthly inspections of my facilities and I

1 always find something. It is an opportunity for  
2 continuous improvement but, certainly, where we find the  
3 deviation, we correct it.

4 **MEMBER DOSMAN:** I was just wondering. The  
5 report card from staff is all "Bs" and that is exemplary,  
6 and that is good, but I note that although it is all "Bs"  
7 that the trends are all horizontal.

8 I was wondering whether a company like  
9 yours with its tradition and resources might not have some  
10 of those "B" headings even higher and whether it was  
11 possible in your plan, for example, although the  
12 individual radiation doses are within limits that it is  
13 obviously with some exposures.

14 I wonder whether your company could see  
15 some of those arrows heading upwards on the report card?

16 **MR. MASON:** For the record, Peter Mason.

17 Well, I think it would be interesting to  
18 know what we would have to do to achieve an "A". So I  
19 would throw the question back.

20 **(LAUGHTER)**

21 **MEMBER DOSMAN:** The questions don't work  
22 that way.

23 **(LAUGHTER)**

24 **MEMBER DOSMAN:** But I do come back to it  
25 again that you seem to have a very well-run company,

1 obviously, wanting to set industry standards and it would  
2 be interesting to see if at some point your company did  
3 achieve some "As" in certain areas.

4 **MR. MASON:** For the record, Peter Mason.

5 I certainly take your point. It's  
6 certainly our intent and our desire to continuously  
7 improve.

8 In fact, I have asked the same question to  
9 myself of staff of what can we do to get to an "A" and I  
10 think, seriously, I think that is something that perhaps  
11 we should discuss with the CNSC and see what can we do to  
12 move from a "B" to an "A". It is certainly something we  
13 would desire to do.

14 **MEMBER DOSMAN:** Thank you. I come back  
15 again, however, and say that it is not up to staff to set  
16 the standards. It is not up to staff to achieve the  
17 standards; it is up to the Company to achieve the  
18 standards and up to staff to observe the standards.

19 **MR. MASON:** For the record, Peter Mason.

20 I would agree with you, but I think, in  
21 order to achieve the standard one has to fully understand  
22 what the standard is.

23 **THE CHAIRPERSON:** Perhaps I could help here  
24 a bit is to, first of all, acknowledge what Dr. Dosman  
25 said is "B" is fully satisfactory as far as the Commission

1 is concerned in terms of meeting the requirements. So I  
2 think it is important to understand that.

3 I think the issues of moving from "B" to  
4 "A" is something that is not just discussed with GE  
5 Canada, but a number of Companies in terms of these issues  
6 and clearly, I think the Commission's stated view has been  
7 that Companies should have their own standards which you  
8 have talked about which should exceed regulatory standards  
9 -- that is generally the way it goes.

10 Regulatory standards are not necessarily --  
11 they are not the best that can be achieved. They are what  
12 are needed for health and safety of Canadians, but that  
13 certainly understanding that the rating system comes from  
14 staff, not from the industry and so that some dialogue is  
15 warranted in terms of what is exactly those levels.

16 But the Commission does worry a little bit  
17 sometimes that the rating system is used as a sort of  
18 absolute and that is not what it is meant to do. It is  
19 meant to be a communications tool that is more easily  
20 understood than DRLs or things like that in terms of broad  
21 areas and should not be looked at some sort of absolute,  
22 that there is an absolute level.

23 But I think, as Dr. Dosman said, I think  
24 the view of the Commission is that we are expecting  
25 industry -- mature industries to be setting a standard

1 that is above the requirements of the industry -- of the  
2 regulator -- and we should be, on the other hand, be  
3 transparent as a regulator in terms of what those  
4 standards are. So there is that dual tension, I think.

5 Dr. Dosman.

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

7 **THE CHAIRPERSON:** Dr. McDill.

8 **MEMBER McDILL:** Thank you.

9 Your sintering operations are very high  
10 pressure, very high temperature. You are running three  
11 shifts, five days a week. When are you doing maintenance?

12 **MR. DESIRI:** For the record, Paul Desiri.

13 Maintenance of the furnaces are carried out  
14 on an ongoing basis as needed, but there is also  
15 preventive maintenance -- preventive maintenance is done  
16 at regular intervals and is scheduled and tracked in an  
17 electronic system for each piece of equipment, including  
18 furnaces.

19 **MEMBER McDILL:** Thank you. That was my  
20 first question.

21 The second question is related to your  
22 solid waste. I think Mr. Graham started a question too  
23 there. How frequently is it shipped, where is it shipped  
24 to, how is it handled?

25 **MR. DESIRI:** For the record, Paul Desiri.



1           I would say that it is unlikely to impact  
2 GE Canada Nuclear Products. We are relatively autonomous  
3 within the organization. I imagine that restructuring is  
4 with the U.S. part of the company.

5           But until I know the details, I cannot  
6 accurately answer your question, but it should not affect  
7 anything to do as far as our licence application.

8           **THE CHAIRPERSON:** Perhaps, Dr. McDill, it  
9 might be worthwhile for staff just to comment because one  
10 of the requirements of the licence is stability in some of  
11 these areas.

12           So what would happen if there was a change  
13 that affected GE Canada, I suppose -- or any other  
14 licensee?

15           **MR. HOWDEN.:** Thank you. Barclay Howden,  
16 for the record.

17           This has occurred with other licensees, so  
18 we have been through this before. So if there was some  
19 sort of restructuring that impacted GE Canada as the  
20 licensee -- like changing them to another part of the  
21 company -- but as a legal entity of that change we would  
22 certainly have to go through the process of amending the  
23 license to reflect that. At the same time the new  
24 licensee would have to demonstrate that all the programs  
25 are in place to do the job.



1                   What has happened with previous licensees  
2                   is they have basically just transferred all the programs  
3                   wholeheartedly under the new entity. So we would look at  
4                   it from that perspective.

5                   If it caused changes -- you know, a ripple  
6                   effect down through the management system -- we would have  
7                   to take a hard look at their quality management system,  
8                   which they are in the process of finalizing the  
9                   documentation now.

10                  Thank you.

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

12                  **MEMBER BARNES:** Thanks.

13                  First, just a trivial point.

14                  You quoted the first part of the mission,  
15                  the EHS mission, and I wonder if -- just as a comment --  
16                  if you would just entertain an addition to that. It  
17                  reads:

18                                 "The primary goal of GE CNP..."

19                  This is your slide 10 of 21:

20                                 "...is to eliminate or control both  
21                                 known or potential environmental  
22                                 safety and health hazards which could  
23                                 impact our employees and the  
24                                 communities in which they live."

25                  It might be better phrased in the kind of

1 interest that the Commission has to read, "that could  
2 impact our employees, the communities in which they live  
3 and the environment," because one of the things you are  
4 doing is putting a certain amount of effluent into the --  
5 through the sewer system into the wider environment.

6 That is just an observation. I do not need  
7 a comment.

8 You also commented that you have continuous  
9 improvement, but I would like to refer to your  
10 illustration of your handout of 16 of 21, specifically the  
11 "Toronto Air Releases", "Per Cent Derived ELs" and so on,  
12 and below that there was the "Toronto Water Releases".

13 Come back to the two anomalies that you  
14 pointed out, the '01-'02 anomalies for air releases and  
15 the '03-'04 anomalies in the water releases. So I do not  
16 necessarily regard these as -- at least the patterns in  
17 those histograms -- as showing continuous improvement. I  
18 recognize that you, I think, meant continuous improvement  
19 on the whole spectrum of activities that you are reporting  
20 on here.

21 But if I come back to those figures that  
22 you have, I wonder how they jive with the data that are  
23 reported in both your document and staff document. I will  
24 refer to the licensee's document in Table 6 and Table 7,  
25 which are the air emission monitoring data for Table 6 and

1 the liquid effluent monitoring for Table 7.

2 For example, in liquid effluent monitoring,  
3 the increase there is really in '04, as opposed to '03 and  
4 in the first quarter reported there, the 1.40 -- I am  
5 looking at "average concentrations" here -- in '05 shows  
6 more or less the same level as '04, whereas your water  
7 releases figures on 16 of 21 shows a very significant drop  
8 in the estimate for '05

9 Sorry, it is possible that I am not  
10 correlating the information on your charts in 16 of 21  
11 properly into Tables 6 and 7, but maybe you could help me  
12 in that?

13 **MR. MASON:** For the record, Peter Mason.

14 I am going to defer that question to Paul  
15 Desiri, who actually does the calculations. I think he is  
16 better qualified to do that.

17 **MR. DESIRI:** For the record, Paul Desiri.

18 Referring to Table 5, looking at years 2004  
19 and 2005, quarter one, the reason that the average  
20 concentration remained more or less the same and yet the -  
21 - oh, I am on Table 5 of CMD 05-H24, "Liquid Effluent  
22 Monitoring" ---

23 **MEMBER BARNES:** Table 5 is "Toronto  
24 Injuries Cases"; is that right?

25 **THE CHAIRPERSON:** No, I think we were

1 referring to your CMD. Dr. Barnes was referring to Tables  
2 6 and 7 of -- it is on page 6 of your CMD -- and  
3 correlating that against Overhead 16 of 21 of your CMD.

4 **MR. DESIRI:** Okay, sorry.

5 So Table 7 of our CMD -- which is the same  
6 as Table 5 in your CMD -- if you look at 2004, the  
7 concentration remain essentially the same in 2005, yet the  
8 discharges have dropped.

9 The reason for that is that the top row,  
10 the concentration, is measured in-house, using our own  
11 equipment and it's an immediate measurement, but it is  
12 less accurate than the external measurement, which is done  
13 by delayed neutron activation analysis. That analysis,  
14 externally, takes about a week. So it is much more  
15 accurate, but it is of no use to us as far as operations,  
16 because we need to know when we analyze a tank's water  
17 concentration that it is well below the limits.

18 So what we do is, we do an internal  
19 measurement on our system which -- and that is how we  
20 report our concentration -- that is our actual  
21 measurements in-house -- and then the discharges are  
22 calculated using the more accurate delayed neutron  
23 activation analysis externally.

24 So there is a bit of a difference in -- but  
25 that explains the correlation.

1                   **MEMBER BARNES:** Okay.

2                   But if I take that as your answer then, if  
3 I do not focus on the top line, the average concentration,  
4 Table 7, but on the lower line, the total discharge to the  
5 sewer, then the contrast between '04 and '05 is almost an  
6 order of magnitude, right, 2.5 to 0.3; whereas, if I go  
7 back to your Toronto Water Releases and your illustration  
8 histogram on page 16 of 21, the Power Point figure, it may  
9 be the order of half, contrasting the histogram values of  
10 '04 and '05.

11                   **MR. DESIRI:** For the record, Paul Desiri.

12                   Looking at '05, that is only for one  
13 quarter, so you would have to multiply that by four to get  
14 the estimate.

15                   **MEMBER BARNES:** Oh, okay. That is right.  
16 Sorry.

17                   I wonder -- I have this as a separate  
18 observation -- we are obviously into quarter three here  
19 and we are only getting quarter one results -- for day two  
20 could we try to also have quarter two and quarter three,  
21 basically the first three quarters?

22                   **MR. DESIRI:** For the record, Paul Desiri.

23                   We will have that data available.

24                   **THE CHAIRPERSON:** Because I would just add,  
25 Dr. Barnes, that that would extrapolate quite a bit higher

1 so it would be actually increasing this year.

2 What else do you have in the basement?

3 **MR. DISIRI:** For the record, Paul Disiri.

4 The basement is generally not a processing  
5 area. The majority of the processing is done on the main  
6 floor, which is one floor above the basement and the third  
7 floor. Fourth floor is offices.

8 So in the basement it is mainly a  
9 maintenance area, a waste handling area. There is two  
10 rooms out of about 20 or so that have some production in  
11 them, but it is limited.

12 **MEMBER BARNES:** So if you have got 10 per  
13 cent of the area doing processing and waste handling what  
14 would be the impact of a flood to the order of three feet  
15 on this and the potential contamination of that water?

16 **MR. DESIRI:** For the record, Paul Desiri.

17 All of the waste is kept in sealed drums.  
18 I believe in the short term there would be no impact from  
19 the waste. From the production, it is essentially two  
20 processes. One is taper grinding, which is quite a,  
21 relatively speaking, low volume of product. And it is  
22 kept actually at table level, so I think the contamination  
23 aspects of the water filling up in the basement would be  
24 limited.

25 **MEMBER BARNES:** Where are the pumps that

1 would pump out this water in the basement?

2 **MR. DESIRI:** Well, the pumps are -- we have  
3 pumps kept in the warehouse in Building Nine, and we also  
4 have some pumps in Building Seven as well.

5 **MEMBER BARNES:** And how long would it take  
6 to activate those pumps?

7 **MR. DESIRI:** Well, just doing an estimate,  
8 the time for the operator to get on the scene and find the  
9 pump and initiate it, I would estimate within possibly an  
10 hour or so, but I would have to check what the actual time  
11 is.

12 **MEMBER BARNES:** And if that water was being  
13 pumped where would it be pumped to?

14 **MR. DESIRI:** The water is released as a  
15 batch process. We have two tanks. They are 3,300 litres  
16 each.

17 **MEMBER BARNES:** I am talking about the  
18 water in the basement.

19 **MR. DESIRI:** Yes. So what we would do is  
20 we would pump the water into our water treatment tanks.

21 **MEMBER BARNES:** And those tanks are large  
22 enough to hold the area up to -- the volume up to three  
23 feet in your basement?

24 **MR. DESIRI:** No, they are not. It would  
25 have to be done in a batch process over a period of

1 possibly a day or two to clear out the whole volume.

2 So basically, you would fill a tank, treat  
3 it; release it and then continue on filling, treating,  
4 releasing until all the volume is gone.

5 **MEMBER BARNES:** Staff, is this an adequate  
6 system for treating sprinkler water systems, given the  
7 aspects of what is going on in the basement and the time  
8 required to treat it? Is this an appropriate device, if  
9 you like?

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

11 **MEMBER BARNES:** I could accept it ---

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

13 The overall answer to your question is  
14 "yes". We are not armed with the detailed information to  
15 provide you the details.

16 What we have done with this facility, you  
17 can see in the Fire Protection Program, there was an  
18 assessment done and part of the assessment is done against  
19 the National Fire Code, which I think is where Mr. Graham  
20 was going, was that the requirement for containment of  
21 runoff water from sprinklers and hoses and that has been  
22 assessed as being adequate.

23 But the focus on that is containment, to  
24 hold it so that you have time to think about how you are  
25 going to then treat it and get rid of it. At this desk



1 right now, we do not have the details for that, but we can  
2 bring that back on Day Two if you wish, Dr. Barnes.

3 **MEMBER BARNES:** I think so, thank you.

4 **THE CHAIRPERSON:** Yes, I think that the  
5 issues of emergency preparedness are much more on  
6 everyone's minds, and I think the CNSC is part of that,  
7 and I think the Commission is very interested in making  
8 sure that we are focusing and learning from perhaps issues  
9 that have happened in other places, including the United  
10 States, in terms of things like pumps failing and  
11 preparation being inadequate, et cetera. So I think it is  
12 reasonable that we have a certain focus on these events in  
13 general, but specifically in this case with flooding.

14 I think it would be worthwhile for both the  
15 licensee and the staff to provide some details of what  
16 were some of the scenarios that were looked at in terms of  
17 emergency preparedness, in terms of some of the risks that  
18 we had looked at. It could be fire, but it could be just  
19 genuine flooding that had nothing to do with fire and use  
20 of water.

21 So just some sort of sense of the scenarios  
22 that you have used and the resultant impact on the  
23 operations and, clearly, on the part of the operation that  
24 involves nuclear materials. I think if I could put it  
25 that way that would be helpful on that.

1           I have a couple of questions. My questions  
2           are a little bit about -- I am always quite interested in  
3           work charts, so thank you very much for providing that.

4           On your Overhead 11 of 21, you have  
5           outlined the organization chart and, understanding that  
6           General Electric is a very large company -- and I  
7           appreciate that having met Mr. White, I understand the  
8           size of the company -- I am kind of interested in the  
9           matrix organization, understanding that you feel it is  
10          working quite well. I have been a manager in a matrix  
11          organization receiving directions from a number of  
12          different areas.

13          I wonder if you could just expand a little  
14          bit on how the manager of QA would receive direction, line  
15          direction from the General Manager and matrix direction,  
16          functional direction I gather, from the VP and the Manger,  
17          and just kind of some sense of -- not necessarily in great  
18          detail but some sort of sense of how that would work and  
19          how that would, I suppose, impact the areas that are  
20          covered by the CNSC?

21                   **MR. MASON:** For the record, Peter Mason.

22           Well, I think in terms of if we first of  
23           all take my direct connection with the manager of QA and  
24           the EHS, that direct reporting is in terms of the day-to-  
25           day operations of the business, performance management,

1       that type of thing.

2                   In terms of the functional link through to  
3       the General Electric Nuclear global manager of EHS, that  
4       is really a source of information of company initiatives,  
5       of directives from an EHS perspective that gets managed  
6       down through the organization. The local manager then  
7       takes that information and advises the Operations  
8       management in the location.

9                   In terms of the country vice-president of  
10       EHS there is a, as I say, a Canadian perspective looking  
11       at all the businesses and ensuring that we are in  
12       compliance with Canadian legislation and also ensuring  
13       that functional link to the global business and also to  
14       the operational management is working correctly. So it is  
15       another crosscheck.

16                   **THE CHAIRPERSON:** Thank you.

17                   I also found it very interesting that there  
18       were As Low as Reasonably Achievable (ALARA) Committees  
19       because, staff will correct me if I am wrong, I don't  
20       normally see ALARA committees. We certainly see, and  
21       expect to, health and safety committees. So I am just  
22       interested from a point of view about the relationship  
23       between the two and how they work together or do they have  
24       separate mandates, et cetera?

25                   How do the committees work together?

1                   **MR. MASON:** For the record, Peter Mason.

2                   Well, they are very separate committees,  
3                   although I am sure if we looked into the Toronto site you  
4                   would find some of the same volunteers on the ALARA  
5                   committee that you have on the Health & Safety committee.

6                   I think the ALARA committee focuses more on  
7                   operationally what can be done to improve the process in  
8                   terms of exposure and that type of thing. The Joint  
9                   Health & Safety Committee has a much broader scope in  
10                  terms of what they are looking at. I would say, and would  
11                  agree, that there is communication between the two  
12                  committees where that makes sense.

13                 **THE CHAIRPERSON:** Would the staff have any  
14                  comment on that?

15                 **MR. WERRY:** David Werry, for the record.

16                 The staff is satisfied with General  
17                 Electric's organization and the way the communication and  
18                 documentation is shown with the two committees.

19                 **THE CHAIRPERSON:** Please correct me if I am  
20                 wrong. It is somewhat unusual, though? I don't remember  
21                 seeing on org charts ALARA committees per se. Do they  
22                 exist and they just aren't on the org charts of most of  
23                 the organizations that we see here?

24                 **MR. HOWDEN:** Barclay Howden speaking, for  
25                 the record.

1                   Yes, these types of committees are required  
2 or something that performs functions like this are  
3 required as part of an ALARA program.

4                   But, yes, you normally don't see it on the  
5 org chart.

6                   **THE CHAIRPERSON:** I have a question for the  
7 licensees. I am famous for my questions about safety  
8 culture and I note that there is a lot of elements in your  
9 discussion of the mission, et cetera, and adherence to EHS  
10 principles for GE, particularly on 10 of 21.

11                   Would you like to comment in general about  
12 what the management of the organization, particularly in  
13 GE Canada, sees as its responsibility with regards to the  
14 discussion of safety and safety culture permeating the  
15 organizations.

16                   **MR. MASON:** For the record, Peter Mason.

17                   Well, I think it is management's  
18 responsibility to inform employees and to engage employees  
19 in actively creating a safe working environment because,  
20 certainly in my experience, the people that will see or in  
21 a position to recognize the hazards on a day-to-day basis  
22 are the people that are actually working on the equipment  
23 rather than those of us who sat in the office.

24                   Therefore, by engaging them in the process  
25 we get much more valuable information which enables us to

1       derive continuous improvement. In fact, I think we now  
2       have got to the stage where we are involving employees and  
3       investigating first aids and near misses rather than  
4       actual injuries. I think we have got to the stage where  
5       people have taken that as a normal part of their job just  
6       as much as learning to operate a machine, knowing the  
7       hazards and the implications and trying to improve the  
8       process is part of their job.

9                So I think that's a management  
10       responsibility and it will only happen if it is being  
11       driven by top management down. It won't happen by just  
12       telling people that they have to do it. I think we have  
13       been very successful in that regard.

14               **THE CHAIRPERSON:** Does the staff have any  
15       comments with regards to safety culture observed or  
16       programs, et cetera, of GE Canada?

17               **MR. HOWDEN:** Thank you. Barclay Howden,  
18       for the record.

19               First of all, just to let you know we have  
20       not done a formal safety culture assessment on these  
21       facilities but as the Commission is aware, we have been  
22       working with industry on trying to come up with ways of  
23       assessing safety culture and getting their input.

24               Having said that, David Werry is our  
25       inspector that is there four times a year plus to assist

1 with the specialists when they go down for specialists  
2 assessments. I would like to just ask him to make a  
3 couple of comments on his observations.

4 **MR. WERRY:** David Werry, for the record.

5 Some of the things that I look at when I am  
6 there is for the interaction and the empowerment of the  
7 staff to actually make a comment regarding safety culture  
8 as well as the leadership capabilities or the leadership  
9 responses and actions of the management.

10 If I am correct in this, I believe that GE  
11 conducted special sessions within their own staff to look  
12 at indicators specifically along the lines of safety  
13 culture, and this was independent of the CNSC staff's --  
14 or CNSC Safety Culture Program and mandate. One of the  
15 things they were looking for were indicators of trust and  
16 leadership capabilities in trying to build a commitment  
17 and empowerment of their staff in order to further that  
18 ability to address the issues.

19 **Mr. MASON:** For the record, Madam  
20 President, we conducted those culture workshops in all  
21 three facilities and it was just part of our communication  
22 and culture change program that we had been conducting.

23 **THE CHAIRPERSON:** Thank you.

24 Are there further questions? Mr. Graham.

25 **MEMBER GRAHAM:** Yes, I had several other

1 questions, and I look for direction, Madam Chair, with  
2 regard to not jeopardizing security but a site plan.

3 You indicated the pumps would be brought  
4 from a certain building to a certain building and so on.  
5 Can that be provided or will that jeopardize security to  
6 have more or less a site plan of the facility or not? I  
7 would look for direction there.

8 **THE CHAIRPERSON:** We will get back to you.

9 **MEMBER GRAHAM:** Okay.

10 And the next question I have is in relation  
11 to that: In what proximity is your facility to  
12 neighbourhoods where people are living?

13 **MR. MASON:** For the record, Peter Mason.

14 It is interesting how the area is  
15 developing. If we take the Lansdowne Road part it's an  
16 old GE facility which is now being developed and I imagine  
17 within the next few years we shall have fashionable condos  
18 and lofts so we could regard that as residential.

19 To the north of the premises we have a  
20 residential area; to the south of the area we have  
21 residential apartment blocks and to the east of the  
22 facility we have commercial warehousing -- commercial  
23 units.

24 **MEMBER GRAHAM:** So on three sides you are  
25 really -- you are getting residential or the potential



1 residential occupancy.

2 Approximately what distance away would that  
3 be? Would it be a kilometre or a half a kilometre or so  
4 on?

5 **MR. MASON:** For the record, it would just  
6 be a distance across a normal street in Toronto.

7 **MEMBER GRAHAM:** My other question was with  
8 regard to disposal of materials like hepa filters are used  
9 in the stack in the filtration of air in your stacks and  
10 so on.

11 What do you do and how are those disposed  
12 of and what -- materials like that in the plant how are  
13 they disposed of, how often and where do they go?

14 **MR. DESIRI:** For the record, Paul Desiri.

15 You are correct. We do use hepa filters in  
16 our plant and these are collected regularly. What we have  
17 is a system to compact the material to keep the volume of  
18 waste down. As I mentioned earlier, we do two shipments a  
19 year to Chalk River.

20 So basically, the hepa filters would be  
21 brought to a certain area, disassembled, compacted into a  
22 drum and then the drums would be prepared for shipment.

23 **MEMBER GRAHAM:** And would they go at the  
24 same time to Chalk River with the slurry mixes that you  
25 referred to in my earlier questions?

1                   **MR. DESIRI:** For the record, Paul Desiri.  
2                   The material that goes to Chalk River is  
3 actually contaminated waste objects like hepa filters or  
4 scrap metal. The slurry material goes back to the  
5 supplier.

6                   **MEMBER GRAHAM:** And both those shipments  
7 are done on or about semi-annually; is that correct, the  
8 slurry to the supplier and the other material to Chalk  
9 River?

10                  **MR. DESIRI:** For the record, Paul Desiri.  
11                  The waste shipments are twice a year to  
12 Chalk River. The slurry shipments happen less frequently.  
13 They are actually about once every -- well, there is  
14 actually two types of waste. There is special waste that  
15 goes about once every two years to Blind River and then  
16 there is normal scrap that goes back to Port Hope on a  
17 monthly basis.

18                  So there is really two categories of  
19 recycled waste.

20                  **MEMBER GRAHAM:** Thank you.

21                  A question to CNSC staff with regard to  
22 licensing addition 7; it goes from 7.1 to 7.4 or 7.5. Is  
23 that a completely new license condition? I didn't have  
24 the old license to compare it. I couldn't find it at home  
25 in my files. So I was wondering, is that whole license

1 condition with regard to fire, is that all new?

2 **MR. HOWDEN:** Barclay Howden, for the  
3 record.

4 No, those five conditions existed  
5 previously. The only change is to 7.1 where we have added  
6 the "NFPA801-2003 addition standard for fire protection  
7 for facilities handling radioactive materials". That's  
8 the only change. That condition has existed since 2000.

9 **MEMBER GRAHAM:** A question I have to the  
10 licensee with regard to training of fire fighters. In  
11 this area of Toronto I would presume that this is not a  
12 volunteer fire department. This is a trained fire or a  
13 regular fire department. How often do they make visits  
14 and how often do you do on-the-site training with the  
15 local fire department, the nearest detachment to your  
16 facility?

17 **MR. PETER MASON:** For the record, Peter  
18 Mason.

19 We have exercises at least once a year and,  
20 typically, we have firefighters in -- or emergency  
21 response teams in about three times a year for training.

22 **MEMBER GRAHAM:** All those firefighters are  
23 trained to work with hazardous and radioactive materials?

24 **MR. DESIRI:** For the record, Paul Desiri.  
25 In the Toronto facility, part of their

1 visit to the site includes a two-hour orientation where we  
2 do a presentation and review the radiation hazards in  
3 normal and accident conditions and then we do a tour  
4 through the facility where we review the hazards in the  
5 plant.

6 **MEMBER GRAHAM:** You work a five-day week,  
7 24 hour/5. What is the procedure if a fire broke out on  
8 the week ends when you are not working?

9 What the procedure with the fire department  
10 in assisting staff, assisting firefighters in the  
11 facility?

12 **MR. DESIRI:** For the record, Paul Desiri.

13 That is in our Emergency Response Plan, the  
14 protocol for a safe -- an alarm was activated on the  
15 weekend -- and it has been reviewed with the fire  
16 department.

17 Essentially, there is an automatic  
18 notification that happens anytime there is a sprinkler  
19 flow or some detector is activated and our security  
20 monitoring company will send out an immediate page to two  
21 different responders: one from engineering, one for EHS.

22 Once they are notified, they are on their  
23 way to the plants. The fire department's preference is to  
24 have a live person to talk to and the responders have cell  
25 phones and all of the numbers that the fire department

1 would need to contact us are in the Emergency Response  
2 Plan that they have a copy of.

3 So the way it would happen is you would  
4 have an activation and the security monitoring company  
5 would send out a page. The page would respond and we  
6 would get the page to make their way to the plant and  
7 establish contact with the fire department en route if  
8 there were issues.

9 **MEMBER GRAHAM:** What you are saying is you  
10 have -- on the weekend you have security monitoring hired,  
11 but there are no -- really no people, nobody at the plant  
12 at all on the weekends or not?

13 **MR. DESIRI:** For the record, Paul Desiri.

14 **THE CHAIRPERSON:** I just want -- I am  
15 getting concerned ---

16 **MR. DESIRI:** Okay.

17 **THE CHAIRPERSON:** --- about the nature of  
18 these. It is really important -- and I was going to  
19 mention it at the end of this questioning -- this is a  
20 commercial operation that has competitors, number 1, and  
21 this is a secure operation as well.

22 So the nature of the questions has to be  
23 watched. I do not want people who should not know things,  
24 know things, okay? So let's be a little careful here  
25 about the nature of the questions.



1                   **MR. CHERKAS:** For the record, my name is  
2 Grant Cherkas.

3                   CNSC staff performed an inspection on  
4 February 2004 at the facility and following that has  
5 engaged in some -- in a number of conversations and  
6 discussions with the Toronto fire service. We are  
7 satisfied that there is adequate fire response in the  
8 facility and that they have adequate training and  
9 equipment to deal with the hazards at the facility.

10                   **MEMBER GRAHAM:** That would be whether it be  
11 on the weekend or on the regular work period?

12                   **MR. CHERKAS:** For the record, Grant  
13 Cherkas.

14                   Yes, 24 hours a day, seven days a week  
15 there would be -- we are satisfied there is no issue.

16                   **THE CHAIRPERSON:** Yes, Doctor Barnes.

17                   **MEMBER BARNES:** Just two questions.

18                   Coming back to the old chart, 11 of 21, the  
19 VP of EHS Canada, you may have mentioned in responding to  
20 President Keen's questions, but who does that person  
21 report to? It is not shown.

22                   **MR. PETER MASON:** For the record, Peter  
23 Mason.

24                   That person reports to the President and  
25 CEO of GE Canada, which is the legal entity for our

1 business in Canada.

2 **MEMBER BARNES:** Okay. Does that person  
3 also in a matrix way report to other VPs of EHS?

4 Is there a system of EHS within GE? Is  
5 there more of an international linkage?

6 **MR. PETER MASON:** For the record, Peter  
7 Mason.

8 Yes, both the VP of EHS for GE Canada and  
9 the Manager of EHS for the GE Nuclear global business have  
10 a dotted line to the GE head office, Fairfield Operation,  
11 and Steve Ramsay who is the overall VP for General  
12 Electric.

13 **MEMBER BARNES:** And the second question for  
14 the staff. In the, to some extent, unresolved issue of  
15 quality assurance you have indicated that we will be  
16 having more information this year. So I assume we are  
17 going to get that for Day Two.

18 One aspect of the quality assurance which -  
19 - well, could you also indicate that in that discussion of  
20 analysis of quality assurance that you will also address  
21 issues of an organization that is running three shifts and  
22 how you maintain quality assurance when the thing is  
23 totally operational 24 hours a day?

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

25 Do you want to have that as an update for



1 Day Two or do you want to comment on ---

2 **MEMBER BARNES:** Well, I notice that the QA  
3 is not yet fully resolved and you are going to -- that is,  
4 as I understand it, going to come back to you in  
5 September. Therefore, I understood that we would get a  
6 more complete report on QA.

7 I am just -- I guess I am asking within  
8 what you are referring to in QA, is the issue of an  
9 organization that is running three shifts, will that -- is  
10 that involved in what you are considering quality  
11 assurance which, I assume, has some additional challenges  
12 when you are running it on a three-shift basis?

13 **MS. NICIC:** For the record, Adriana Nicic.

14 Yes, you are perfectly right. We are  
15 really interested and this is why we are pushing in the  
16 area of documentation of an adequate quality assurance  
17 problem because he considers it having a good documented  
18 program which includes the procedures starting with -- the  
19 first level is the quality assurance manual and supporting  
20 procedures. He is going to provide a good basis for  
21 procedure adherence for all the people who are involved in  
22 the operation.

23 So this is both the lessons he and  
24 ourselves we are trying to achieve this goal, having a  
25 good foundation for ensuring compliance.

1                   **MEMBER BARNES:** Maybe on that issue to GE,  
2 the night shift, how many people would be on that  
3 normally?

4                   You have indicated there are 46 employees  
5 and an 'X' number of those would be on sort of general  
6 management and other. So could you just give me an idea  
7 of how many people would be working in the plant during  
8 the wee hours?

9                   **MR. PETER MASON:** For the record, Peter  
10 Mason.

11                   Approximately 11.

12                   **MEMBER BARNES:** And who is the position --  
13 is the person who is essentially responsible for that  
14 whole shift should anything go wrong?

15                   **MR. PETER MASON:** Peter Mason.

16                   It would be the production supervisor and  
17 that person would be on call.

18                   **MEMBER BARNES:** Which person onsite has --  
19 is the leader of the group onsite?

20                   **MR. DESIRI:** For the record, Paul Desiri.  
21 The senior person onsite is the group  
22 leader.

23                   **MEMBER BARNES:** That is not the person that  
24 is on call then?

25                   **MR. DESIRI:** No. The group leader reports

1 to the production supervisor.

2 **MEMBER BARNES:** And to staff, this is an  
3 adequate system for any emergency issues that come up?

4 **MR. WERRY:** David Werry, for the record.

5 It is usual in 24-hour operations, seven  
6 days a week, that the actual shift is supervised by the  
7 group leader and then reports ultimately up through a day  
8 shift supervisor who has the responsibility, yes.

9 **MEMBER BARNES:** Thank you.

10 **THE CHAIRPERSON:** Dr. Dosman.

11 **MEMBER DOSMAN:** Madam Chair, thank you.

12 I was just noting the Public Information  
13 Program and I am wondering whether the company would be  
14 willing to share with -- some of the aspects of that  
15 program.

16 What is it that you do in terms of public  
17 information?

18 **MR. PETER MASON:** For the record, Peter  
19 Mason.

20 Typically, we do not share a great deal of  
21 information with the public for security reasons.

22 In terms of this licensing application we  
23 have notified political leaders in the area, we have  
24 placed advertisements in local newspapers, and we also  
25 have spots in the local radio media as well.

1                   **MEMBER DOSMAN:** And staff -- presumably it  
2 is the view that this is an adequate public information  
3 program?

4                   **MR. WERRY:** David Werry for the record.  
5 Yes, the program has been reviewed by CNSC staff, and they  
6 have accepted the program.

7                   **MEMBER DOSMAN:** Thank you.

8                   **THE CHAIRPERSON:** Are there any further  
9 questions?  
10                   Well, thank you very much then. Mr.  
11 Secretary?

12                   **M. LEBLANC:** Merci. This hearing is being  
13 continued on December 1<sup>st</sup>, 2005 here in the CNSC offices.  
14 The public is invited to participate either by oral  
15 presentation, or written submission on Hearing Day Two.  
16 Persons who wish to intervene on that day must file  
17 submissions by October 31<sup>st</sup>, 2005.

18                   The hearing is now adjourned to December  
19 1<sup>st</sup>, 2005.

20                   **THE CHAIRPERSON:** So thank you very much.  
21 Our next hearing is scheduled for 11:00  
22 o'clock.

23                   So we're going to have to start at 11:00  
24 o'clock then on the application by General Electric Canada  
25 for the renewal of the licence of the Peterborough

1 facility. So we'll see you at 11:00, thank you.

2 --- Upon recessing at 10:06 a.m.

3 --- Upon resuming at 11:02 a.m.

4 **THE CHAIRPERSON:** Good morning. The next  
5 item on the agenda today is Hearing Day One in the matter  
6 of the application by General Electric Canada Inc. for the  
7 renewal of the licence to operate the Peterborough Nuclear  
8 Fuel Fabrication facility.

9 **M. LEBLANC:** The Notice of Public Hearing  
10 2005, H-13 was published on June 10<sup>th</sup>, 2005. August 15<sup>th</sup>,  
11 2005 was the deadline set for filing by the Applicant, and  
12 by CNSC staff.

13 September 7 was the deadline for filing of  
14 supplementary information. I know that supplementary  
15 information has been filed by the Applicant. CMD 05-H25.A  
16 is a confidential appendix to CNSC staff's CMD, dealing  
17 specifically with security matters, and as such will not  
18 be discussed in public.

19 As indicated by President Keen earlier this  
20 morning, the Commission is conducting today two parallel  
21 hearings on the General Electric Toronto and Peterborough  
22 facilities. The Commission notes that the facilities are  
23 similar and may share a number of safety programs.

24 Therefore, to reduce repetition and ensure  
25 there is a complete record for both hearings, the

1 Commission in making its decisions will consider any  
2 relevant information regarding those common elements that  
3 may be presented during the course of either of these  
4 hearings.  
5