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Chair

Mr. Brent St. Denis

Standing Committee on Industry, Natural Resources, Science and Technology

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● (1535)

[*English*]

The Chair (Mr. Brent St. Denis (Algoma—Manitoulin—Kapuskasing, Lib.)): Good afternoon, everyone.

I'm pleased to call to order this Monday, May 2, meeting of the Standing Committee on Industry, Natural Resources, Science, and Technology.

Today we are continuing our study of some of the estimates that fall under the Minister of Natural Resources. We have witnesses today from Atomic Energy of Canada Limited for the first hour, and then separately, in the second hour, after a brief suspension, the Canadian Nuclear Safety Commission.

We thank you very much, gentlemen, for being here today to help us with the estimates for AECL.

So without any further ado, we'll get right into it. I understand, Mr. Frenette, you'll be speaking. We ask you to try to keep your remarks to five, six, or seven minutes maximum, allowing good time within the hour for some questions.

Mr. R. Raymond Frenette (Chairman, Board of Directors, Atomic Energy of Canada Limited): Thank you very much, Mr. Chairman.

First, my colleagues are Mr. Van Adel, the president and CEO of our corporation; our senior vice-president of technology, David Torgerson; and our chief financial officer, Mike Robins. They're going to be providing you with a very quick overview of AECL.

[*Translation*]

First, Mr. Chairman, allow me to make a few introductory comments.

At AECL, we are extremely proud of our history, which in fact spans half a century. We are a business corporation which includes two groups, two branches, if you wish. First, we are a business enterprise specializing in CANDU reactor production and services. Second, we are a national laboratory providing research and development on nuclear safety.

In addition, we supply medical isotopes to MDS Nordion, and we actively participate, with MDS Nordion, in the export of approximately 70% of the world offer in nuclear medicine. We have 3,500 highly qualified employees, and we are very proud of our products and records.

As regards Crown corporation governance, Mr. Chairman, this is an issue that has certainly caused a lot of ink to flow. I am very proud of the very positive comments made about us by the Treasury Board in their latest report.

[*English*]

Mr. Chairman, a nuclear renaissance is around the corner and it's around the globe. Canada must therefore take full advantage of it because the future is bright indeed.

Before I turn the floor over to my colleague and president, Bob, let me remind you of a recent statement by the renowned scientist James Lovelock, an acknowledged leader in environment issues, who said, “Now that we have made the Earth sick, it will not be cured by alternative green remedies, like wind turbines and bio fuels alone. This is why I recommend instead the appropriate medicine of nuclear energy as part of a sensible portfolio of energy sources.”

Therefore, Mr. Chairman, the future is bright indeed.

Bob.

Mr. Robert Van Adel (President and Chief Executive Officer, Atomic Energy of Canada Limited): Thank you very much, Ray.

You have in front of you, I believe, a brief deck that has some slides that might assist you. I'm on page 3 of that deck; I'd like to start there because I think it's very important to understand the size of AECL's activity.

On average, our revenues are about $700 million a year, but very importantly, the appropriated portion of AECL's activity is about $125 million a year. Those reference levels were set back in 1995; they've been frozen since then, and we've been operating at that level.

The entire activity in our national labs is more like $250 million, and half is paid for by AECL's commercial profits and half by the appropriated amount. So rather than the commercial activity of AECL being subsidized by the appropriations, it's quite the opposite. The profitability of AECL's commercial activity in fact pays for about half the cost of the national labs.

I'll just say a word on the nuclear industry. I know you've had presentations from the CNA and others, so I won't take too much time on it, other than to say AECL has CANDU reactors operating in seven countries, 34 reactors have been built, and AECL's performance internationally in terms of those reactors has been exemplary. We've had reactors in the top three by way of performance annually year over year. Today half of Ontario's and 30% of New Brunswick's energy is generated from CANDU reactors.

We've had a recent success I'm sure you've heard about, in China, where just last year we completed two CANDU reactors on time and on budget. This reflects the fact that over the last decade AECL has built six reactors around the world on time and on budget. The cost overruns you've heard about in the industry have not been a feature in any project where AECL has been directly responsible.

On slide 6 you can see a bar chart that shows the economic benefits to Canada. Of the $6 billion federal investment to date in CANDU technology since 1952, there's been $160 billion in benefits, and $85 billion is forecast over the next 20 years if Ontario refurbishes its current reactors and builds a modest number of new ones. CANDU is one of Canada's greatest technology exports, ranking with aircraft and telecommunications.

Slide 7 shows a very interesting dynamic. That is, if you look at the per capita spending by governments on nuclear in the G-7 countries, Canada ranks among the lowest, with Italy, which has no formal nuclear program. While we've been doing fairly well with a limited amount of spending from the federal government on the nuclear option, we do foresee that in the future the amount of investment will have to go up to keep abreast with international standards.

But AECL has a robust business. I don't know if you realize it, but 441 nuclear reactors exist in the world in 31 countries, 25 are currently under construction, and 37 more are planned, with more to come. AECL has a very robust base business with its refurbishment, its services, and a new generation of technology coming online.

Here's just a word on Ontario. Ontario is facing an energy crisis, which the government acknowledges, in that between now and the year 2020 they'll have to replace two-thirds of their base load installed capacity. Since there's no intention of doing that all with gas and they intend to shut down coal, it means nuclear refurbishment and new builds have to be part of the option. The Government of Ontario has made that quite clear. AECL will be a major part of that with the CANDU technology.

Finally, in terms of that new technology, let me say that on the next slide we're referring to the advanced CANDU reactor, which is a new generation of reactor that competes with that available from the Europeans and the U.S. It is a derivative product from our current technology and represents a very well-proven and attractive alternative for the future.

As well, we've emphasized strong partnership. We have in the last five years been leveraging the private sector into our activities, both to share risk but also to help us develop our technology. Today AECL has major partnerships that did not exist before that are helping drive us forward.

● (1540)

And finally, as we wrap up, let me point out on the next slide that the key to climate change is nuclear. If you consider CO_2 emissions by technology, hydro and nuclear are the lowest, even below wind, if you take in the life-cycle activity. I know we're always interested in the polls, and the polls that are done every three months on nuclear across Canada indicate the majority of Canadians see nuclear as part of our future energy mix. In provinces where it exists as a base load, such as Ontario, 67% in Ontario support refurbishment of new stations.

We should mention waste as our last item. There is much concern about it in the world. We have proprietary technologies and have been doing a good job in Canada with the technology development, but public opinion on solutions has lagged behind.

You're aware of the NWMO, the nuclear waste management office, recently doing a three-year study of public opinion and acceptance of solutions to waste, particularly spent fuel. This fall we'll hear a recommendation from that committee, and we understand and are hopeful that the outcome will be very positive in terms of Canadians accepting a long-term underground storage facility as a solution, which would move Canada ahead with nations like the United States and Finland, to name a few, which have adopted that solution.

I'll stop there, Mr. Chairman, and we'll accept any questions, obviously. We're at your disposal.

● (1545)

The Chair: Thank you very much for your presentation.

I believe we're going to start with Michael Chong.

Mr. Michael Chong (Wellington—Halton Hills, CPC): Thank you, Mr. Chair.

Thank you very much for your presentations.

I have a number of questions, and I wonder if we could maybe just do a quick question and answer session, as opposed to long-winded prognostications on my part.

One of the concerns I had over the last short while was on some of the recent news reports in the media about what the Canadian Nuclear Safety Commission saw as lapses at your Chalk River facility, and there are also concerns about guaranteed shutdown states and the project you're working on for medical isotopes.

Maybe you could just comment on those two issues.

Mr. Robert Van Adel: Yes.

We have, during the course of our operations, what we call reportable instances, which are instances that require us to do a self-diagnostic and report them to the CNSC if we feel they meet certain criteria.

The incidents you're referring to were reported to the CNSC by us, including a root-cause study, and the CNSC followed with an investigation to determine if there was further action required.

I won't call these routine, in the sense that whenever one occurs we take it very seriously, but in all of the cases, the three or four that have come to the CNSC in the last while—there appears to be a bit of a cluster for AECL—there was never any health, safety, or environmental risk associated with those incidents. I'm not saying they weren't serious in and of themselves, but they were more procedural and process oriented, and the emphasis of the regulatory environment today is on strict adherence to policy, procedure, and process.

So we appeared before the commission, made our reports, and disposed of those. I think they would have been handled as sort of normal types of incidents in that they weren't necessarily unusual in their own right, but the media certainly decided to play up one of the incidents and began to make a bit of a story of it. So we saw a disproportionately negative reporting in the press relative to the nature of the specific incidents.

If you'd like more clarification, we'd be glad to go into the details.

Mr. Michael Chong: How often are you subject to the regulator's inspections. Do they go on site daily? Are they on site permanently, or do they make visits to your facilities, or how does that work?

Mr. Robert Van Adel: There's a very strict inspection regime.

I'll ask Dr. Torgerson to review that since he's the head of the facility.

Mr. David Torgerson (Senior Vice-President, Technology, Atomic Energy of Canada Limited): There are many regular visits from the regulator to inspect various operations of the Chalk River site. They are very diligent with all aspects of the operation at the site, and in fact, with respect to some of the incidents that were recently reported, such as the disposal of our sewage sludge, they sent in an independent investigation team to thoroughly look at the practice and to determine what was going on at the site.

I should mention that the report came out, and it stated—I quote—that there was “no increased radiological risk” to the public or the environment through that activity of disposing of sewage sludge.

Mr. Michael Chong: Another question I have is about waste management. I don't know if you have an opinion on this, but if you do, I'd like to know whether you think it's better in the long term to store nuclear waste at a central facility or to store it in a distributed manner at the various nuclear sites; and secondly, if we do have a central storage facility, whether it's better to keep it above ground or buried deep in the Canadian Shield, as some have suggested.

● (1550)

Mr. Robert Van Adel: AECL is not formally a member of the WMO, so obviously we're just a respondent like anyone else.

At Whiteshell, Manitoba, we had an underground facility operating for about 20 years, funded by the federal government, to study the details of deep underground storage and all the properties that would be deployed. The result of that research put Canada as a world leader in deep underground storage solutions.

It was always AECL's view that, as a result of that research, it was a very technically and commercially sound approach, but when it was first proposed, there wasn't sufficient public acceptance, so the government stepped away from that. It still remains, and we're likely to hear, as part of the WMO review, a very sound and acceptable solution; it's one of them.

Also, regarding permanent storage or long-term storage on the sites, we have technology deployed today—our own technology, in fact, that's deployed around the world—to do that. It is a safe solution, but I guess our preference would be a longer-term storage facility, and that could be on-site or it could be in a central repository. Both are companion pieces.

Mr. Michael Chong: Recently you appointed a new chief regulatory officer.

Mr. Robert Van Adel: Yes.

Mr. Michael Chong: This is a new position, I assume. Does this have anything to do with some of the recent concerns I initially brought up?

Mr. Robert Van Adel: Yes and no, in the sense that, yes, we have been trying our best to continue to improve our response to the regulatory process to the extent that Ms. Keen would ask the industry. We'd like to get out in front and establish a level of excellence and a standard that is high enough that the regulator can simply oversee what we're already doing as best practice.

If you can imagine the complexity of a site like Chalk River and the 50-year history, the process by which we accelerate the cultural change and the process improvements and other things to get to that level are not an overnight achievement. It's a bit of a challenge to get there.

We've been working very hard. We've been improving and I think obviously meeting an acceptable standard. But to get to that next level, I wanted to put a particular emphasis on it. I created that position so that I had someone who was reporting to me and other top management, with an ability to move across the corporation and de-bottleneck and accelerate the process by which we improve our processes. So I think that, plus other resources in support of that position, is a sound move, and it will help us to put the emphasis we need on this bar that's constantly being raised.

Mr. Michael Chong: This is a bit of a general question. A lot of nuclear projects in Ontario have gotten a reputation for going wildly over cost, whether they be new builds or whether they be refurbishments—with Ontario Hydro, but also with some of the private sector builds that have been going on. Can you give this committee an idea as to why we can't seem to manage costs, whether that's something that has to do with forces outside of your control or whether those are things that you can deal with, or possibly something else?

Mr. Robert Van Adel: I'll separate the international from the domestic. On the international side, as I mentioned, AECL has delivered on time, on budget, all the projects we've been involved in. We have an excellent track record there, which is world class and well recognized.

On the domestic scene, in particular in Ontario, if you go back to the history—and since I wasn't involved, I'll give it at a very high level—the early days of reactor construction were under the auspices of OPG, Ontario Hydro in those days. Each reactor—whether it is Pickering or Bruce Power or Darlington, and the ones in New Brunswick and Quebec—is different in design. They were commissioned by the owner-operator, and in the case of Ontario reactors at least, AECL was hired to do the design, but we weren't the project managers and the overall implementer.

In those days as well there was a tendency to design while you were building, which is not the way large projects in aerospace or nuclear are done today. Today we design in advance, we test, we preregulate, and we go through the environmental assessment process. So we're in the field, we're ready to go, and that explains our success internationally, by contrast, on new build.

The recent overruns you've heard about at Pickering and elsewhere are for upgrading existing reactors, which is different from the kind of refurbishment I talk about at Point Lapreau, for example, and Bruce Power, where we're going to retube a reactor entirely. These are complex upgrade projects. The Epp study, which really diagnosed the problem and laid it out for the Ontario government and everyone, and resulted in action at OPG and elsewhere, basically said there wasn't enough up-front planning or good project management and execution. That was not the fault of the suppliers or AECL; that was squarely laid on the approach at OPG.

The action to improve has been taken. I think the recent experience on the Pickering 2 reactor has demonstrated a significant improvement, and while Bruce Power did overrun on its first venture, it was still well within a reasonable range. They were over by about three months and a small amount.

● (1555)

Mr. Michael Chong: Are you doing the project management? You're not doing it for Pickering. Are you doing it for MDS Nordion?

Mr. Robert Van Adel: In fact, we're not even involved in Pickering. We were only doing 10% of that project and have been out of it for several years.

Mr. Michael Chong: What's your involvement with MDS Nordion?

Mr. Robert Van Adel: In MDS Nordion we are the sole designer and constructor of the reactor, and that's a completely different environment. Now we're talking about a one-of-a-kind facility that's never been built before, as opposed to power reactors, where 400-and-some are operating worldwide. That's a different story, and we can talk about that if you like.

The Chair: Okay, Michael. If there's time we can come back.

Serge.

[*Translation*]

Mr. Serge Cardin (Sherbrooke, BQ): Thank you, Mr. Chairman. Good afternoon.

I have been sitting on this committee for several years. We often—or maybe not often enough—discuss nuclear issues. There have been times when we noted that the global trend as regards the use of nuclear energy, in certain countries, was declining. However, the information we have been getting recently indicates that demand for nuclear facilities is on the rise.

What is your perception of nuclear development? What is the trend , both in Canada and around the world.

Mr. R. Raymond Frenette: There is no doubt that there is a nuclear renaissance around the globe, and there are several reasons for this. The increase in the price of other sources of energy is probably one of them. The price of natural gas is increasing considerably, while reserves are constantly depleting. This is a problem. The other problems we are faced with around the globe are the negative impacts of the other sources of energy on the atmosphere, including greenhouse gases.

So, there is a nuclear comeback. In my opening comments, I referred to the renowned environmentalist James Lovelock, who recently said that something must absolutely be done. Yet, although he is convinced of the importance of protecting the environment, he strongly supports the development of nuclear energy.

There is no doubt that wind and solar energy are sources that should be developed; we support that. However, even the environmentalists agree that this cannot be, in and of itself, the solution for meeting world demand.

Mr. Serge Cardin: As I recall, you said in documents I read that people seemed less and less concerned. Yet, not so long ago, fairly conclusive surveys revealed that the people were very concerned about nuclear energy. Generally speaking, as we can now see, surveys cannot always be relied on. It also depends on the preliminary questions and sub-questions that are asked.

The fact remains that, in a context like that of the Kyoto Protocol, for example, people obviously have the reflex of choosing between greenhouse gasses and nuclear waste management. Yet, most people cannot imagine what managing nuclear waste is like. They don't know what the actual risks are. We hear all kinds of things. There are very optimistic people, who have no concerns, while others are—I was going to say pessimistic—maybe more objective, more realistic, and do have concerns. Waste management is becoming a major problem.

There is a sub-question. Maybe you could give me information on how you see things. I'm not sure how much work the nuclear waste management office has completed in finding a location for deep geologic storage.

● (1600)

Mr. R. Raymond Frenette: To answer the first question, I would say that the nuclear industry is ultimately the only one that controls its waste. We know exactly how much waste we have, as well as where it is and what it's made of. This should be compared with other sources of energy which, in fact, release their waste into the atmosphere without ever having determined what the cost of this practice is. In this respect, we are proud of our situation. We're doing a good job to control our waste.

As for the other part of your question, as we know, a commission chaired by Ms. Dowdeswell has been set up, here in Ottawa. This commission will have to choose between three options: the waste could be placed above ground in concrete containers, or it could be placed in the same way on each nuclear site, or we could choose a location where it could all be stored aboveground in silos like that. The third option would consist in burying the long-term waste somewhere in Canadian rock. No decision has yet been made about this. However, as we may recall, this was the solution recommended in the previous study carried out 10, 12 or 15 years ago. However, it was recognized that, at the social level, the population was not ready to accept this solution. We'll see what Ms. Dowdeswell will do.

We are prepared to accept a solution that would be acceptable to Canadians.

[*English*]

Maybe you want to add something, Bob. You've been following that.

Mr. Robert Van Adel: The amount of waste itself is a very small quantity when you look at the spent fuel. If you take all of the CANDU reactors that have operated in Canada over the last 30-some years, all of the spent fuel that came out of those reactors would fill an area the size of a football field, piled a little less than a metre high. So the physical quantity to be stored relative to the benefit and the amount of power that's been produced is very small.

We find that once the public gets a better understanding of what's really involved, the level of acceptance goes up quite dramatically. If the nuclear industry has been at fault, it's been at fault for not talking enough about the benefits and the risks. So I think we are about to enter a new era in terms of the dialogue between the public, the NGOs, and the industry, led by this waste management initiative from the federal government.

[*Translation*]

Mr. Serge Cardin: If a comparative study were carried out between nuclear and other forms of energy—you probably have the latest data—, what would the actual cost of one kilowatt-hour be if produced by nuclear energy as compared to other forms of energy, considering all the commitments and responsibilities in terms of waste burial and management? Is the risk of the unknown, or the unknown risk, worth the profitability?

● (1605)

[*English*]

Mr. David Torgerson: The permanent disposal of nuclear waste has been under investigation in many countries for many years now. The international consensus is that the waste can be stored over long periods of time in dry storage—technology that AECL has developed and is now in use in CANDU reactors all over the world. It can also be disposed of permanently in deep geologic formations.

Several countries have studied this and have come to the same conclusion that this can be done safely. Countries such as Finland and Sweden are moving toward permanent deep geologic storage. Countries like the United States are moving toward deep geologic disposal. Canada also has the technology for doing this. We know it works because nature ties up very similar materials for very long periods of time. There's no reason why, if it works in other countries, it's not going to work here in Canada.

Mr. Robert Van Adel: The future cost of waste disposal is now built into the price people pay for power. A fund has been established by the government that takes a percentage of each dollar people spend on power and puts it away to ultimately pay for the cost of future waste disposal. That fund has already built up to several hundreds of millions of dollars. AECL itself contributes $10 million a year toward that fund.

The cost of this future facility we're talking about, whether it's deep underground storage or some other solution, will be covered by the utilities in the future. So it's not a legacy that's going to fall on the public or the governments. I think the biggest breakthrough in this whole discussion is that the future cost is being covered by the go-forward price of power stations. Whenever we price a nuclear power station or a refurbishment, the future costs of waste storage, decommissioning, and all those costs are built into that price. That's a big breakthrough.

[*Translation*]

The Chair: Okay?

Mr. Serge Cardin: Do I still have time?

Ontario has 90% of Canada's nuclear plants. There is one in Quebec, and one in New Brunswick; that's about all. We often hear: “never in my backyard.“ Technically, however, the backyard is Ontario. So, from a social perspective, everyone is responsible for disposing of their own waste. This can create concerns among the population.

What can be expected? If the nuclear waste management office were to opt for deep waste burial, one would normally expect that it would be buried mainly where it was produced.

M. R. Raymond Frenette: I believe this is why Ms. Dowdeswell is currently studying the three options. Either each plant would be responsible for its own waste, or a central location, aboveground or underground, would be found. From the point of view you outlined, this is probably more or less what will happen. We'll see Ms. Dowdeswell's report very soon.

[*English*]

Mr. Robert Van Adel: It should be out in September. I think the preliminary report has been circulated to the sponsors, the government, for initial comment. But we understand that public release will be early in the fall, in September, and it will examine all of those issues and questions. AECL today is not in a position to disclose the outcome of the report; we're merely speaking as an interested party.

[*Translation*]

The Chair: Okay.

Thank you, Serge.

[*English*]

Joe Comartin, please.

Welcome to the committee, Joe.

Mr. Joe Comartin (Windsor—Tecumseh, NDP): Thank you, Mr. Chair.

Thank you for being here. I think you know from some of my earlier encounters with you that I'm somewhat more skeptical about the future of the nuclear industry than you are.

Let me deal strictly with the dollars. When the current Prime Minister was finance minister, he took the position in a series of budgets that the industry would not be subsidized by more than $100 million. That quota has never been met; it's always been exceeded.

When did he first set that, and by how much has it been exceeded over those years?

● (1610)

Mr. Michael Robins (Chief Financial Officer, Atomic Energy of Canada Limited): I can talk to that. It was 1996 when the appropriations were reduced by about 40% to approximately $100 million. Since that time, they've been approximately flat. We're at $103 million a year to support the operations of our facilities today.

So we have continued to operate within the constraints you described. We've done so by improving our processes, reducing our corporate expenses, and being much more efficient in the way we deliver the projects.

As Mr. Van Adel said, half of the operations of our Chalk River facility are supported by our commercial operations where the profits that are created fund the operations and offset some of the costs associated with running those operations.

So we have continued to—

Mr. Joe Comartin: But, Mr. Robins, I know from when I was doing work on the industry that in fact there was one year where, in the supplementary estimates, you received I think an additional $50 million. I think one year it went up to $150 million. Am I right?

Mr. Michael Robins: There are two other aspects of our funding. The appropriations for operations are what I've just referred to.

We have, on occasion, received funding separately for the investment in the ACR, which is for the next generation CANDU reactor and its development that is under way.

In addition to that, there was some funding associated with Chalk River refurbishment that was a one-time appropriation of $10 million, and there was $47 million forwarded for a working capital infusion related in part to the sale of one of our operations early in the 1990s. So it was a capital infusion to maintain the operations and satisfactory cash levels to operate the business. So, yes, there was a one-time capital infusion.

Mr. Joe Comartin: Is there a request for that type of capital infusion into the ACRs for the current year?

Mr. Michael Robins: Yes, there is requested funding for $60 million associated with the ACR, and that is a portion of the amount we've indicated we will be expending on the ACR development to bring it to market. This, as well as our Chalk River facility, is supported by the profits we earn from the sale of services, ongoing refurbishment of existing plants, and a couple of projects that are under way overseas.

Mr. Joe Comartin: The $60 million you just referred to that's being sought for the investment in the ACRs is not reflected in these estimates that we have before us?

Mr. Michael Robins: That's correct; it's not part of the main estimates.

Mr. Joe Comartin: With regard to the ACR, is my understanding correct that up to this point you've not been able to market the ACR any place internationally?

Mr. Robert Van Adel: No. We are competing against similar reactor vendors from the United States and Europe—Westinghouse; GE; Framatome, a French-owned vendor—and our next generation reactor is competing against their next generation of reactors, and no one has placed an order for the next generation yet. They are being developed in anticipation of the market that is developing around the world.

AECL is supporting this primarily off the refurbishment and services business—which Mike described—which is growing and is quite robust, but also with that support from the government by way of an investment.

Mr. Joe Comartin: I don't have a lot of time, Mr. Van Adel. How long has the ACR been on the market? How many years has it been on the market where you could have sold them that technology?

Mr. Robert Van Adel: It's not on the market in the sense that we could have sold it. It's not ready yet for construction; therefore, we've been negotiating and talking to clients around the world—including in Ontario—about the concept reactor, which will be ready in the next two years or so.

We have to go through the licensing process and we have to go through an environmental assessment process before we can actually sell a reactor. So the first possible date of bringing it into the market, let's say in Ontario...we wouldn't be able to do that for at least three to five years, until we've finished an environmental assessment process. But in the meantime, we're about halfway through the licensing process here in Canada.

We have prospects in—

● (1615)

Mr. Joe Comartin: Will the capital expenditures for the ACR be in the same range over this next three-year period of $50 million to $60 million?

Mr. Robert Van Adel: No. All we've asked for to finally complete it would be an amount of approximately that. From $60 million to $75 million would be all that would be required.

Mr. Joe Comartin: So this will be the final year?

Mr. Robert Van Adel: Next year would be the final year.

Mr. Joe Comartin: It would be this year and 2006-07?

Mr. Robert Van Adel: Yes, that's right.

Mr. Michael Robins: There's an incremental $75 million that will finalize the funding requirements for the ACR: $60 million this year and $75 million....

Mr. Joe Comartin: Which generation were the reactors you sold to China and South Korea?

Mr. Robert Van Adel: Those reactors are what we call CANDU 6, which is the base reactor against which the new one, the ACR, is modelled.

Unlike some of our other vendors, AECL has been successful in bringing a next generation design that is a derivative of our current reactor technology. So while there are new elements, it's 40% cheaper in capital cost, it can be constructed in three years, it's cheaper to operate, it's safer, and it has been upgraded for the security requirements. It meets all of the requirements, including the price points, for next generation reactors. The reason it's such a modest investment to bring it to market, relative to what our competitors are doing, is we've been able to take the CANDU 6 and modify it substantially but not build a complete new design. That has received widespread acceptance in the market.

Mr. Joe Comartin: When was the last time we actually were able to sell a reactor?

Mr. Robert Van Adel: The last one we sold is in Romania. We're completing it. We have another one under negotiation in Romania right now. Prior to that were the CANDU reactors in China.

Mr. Joe Comartin: What year was the sale to Romania?

Mr. Robert Van Adel: That was in 2002.

Mr. Joe Comartin: Did the Canadian government help finance the purchase of that reactor?

Mr. Robert Van Adel: Yes, it provided an amount of financing to Romania, along with the Italians and others who participated.

The loans for the first Romanian reactor are paid back this year, I believe; in 2006 they'll be finally repaid. The new loan that was made is partially repaid, and the interest rates and fees and other things on the loan to EDC make them non-subsidized. They are at commercial rates. In fact, they're quite high.

Mr. Joe Comartin: Was the same true about the Chinese and South Korean reactors?

Mr. Robert Van Adel: The South Koreans only took financing for the first one, and I believe it's repaid. They did not take financing for the second reactors—the second, third, and fourth—because they would judge the financing from EDC to be too expensive relative to the market.

The Chinese took some export credit loans from us at market rates. China is one of the most creditworthy countries in the world; therefore, the risk associated with the repayment of those EDC loans is extremely low. Indeed, they will be very profitable loans to the Government of Canada.

Mr. Joe Comartin: The scandal around how that contract was awarded for South Korea surfaced again when you were dealing with Bulgaria a year and a half ago. I never got any satisfactory response, other than that I know AECL withdrew form the Bulgaria bid.

Whatever came of that investigation I believe you were carrying on as to those allegations?

Mr. Robert Van Adel: First of all, you made a connection between the two. There is absolutely no connection whatsoever.

Mr. Joe Comartin: No, the connection I made, Mr. Van Adel, was that the allegations that were made with regard to Bulgaria were saying this is a repeat of what happened in South Korea.

Mr. Robert Van Adel: I'm not aware of that allegation, but let me explain what happened in the case of Bulgaria.

We were pursuing a reactor sale at the request of the Bulgarians, competing against the Russians. AECL received—I and others, board members and so on, received—a long, anonymous letter alleging that there were various payoffs and so on going on that were associated with it. I received it at 9 o'clock or 10 o'clock on a Monday morning and I called the internal auditor, the CFO, and the chief legal counsel into my office and asked that this letter be turned over immediately to the RCMP. That's what we did.

I asked that the RCMP look at this and determine whether there was any strength to it at all. In my view, it was a letter perhaps concocted by our competition. After all, the Russians were competing very hard for this, and Bulgaria is a very difficult market, and one that we were very reluctant to enter. We didn't spend much time or money on it, but we were asked to come in, so we did.

We withdrew because the commercial prospect appeared to us to be unrealistic, in that they really intended to buy from the Russians from the beginning. As a result of the investigation.... We had an independent investigator as well. We hired a firm to look into this, a forensic investigator. The RCMP looked into it. Incidentally, I called the Auditor General that morning as well and turned over the materials to her and asked that she and her staff look into this, and their separate fraud investigation unit looked into it.

Everyone came back and said there was no substance to those allegations whatsoever, and they could find no wrongdoing, and that it appeared to be a frivolous allegation.

You probably didn't hear much more about it because it didn't amount to anything.

● (1620)

The Chair: Can you wind up, Joe?

Mr. Joe Comartin: Just a final question, Mr. Chair.

Were any of those reports of the investigation made public?

Mr. Robert Van Adel: They are made available to the Auditor General, to the minister, everyone. They were also reported in the press, I think.

Mr. Michael Robins: The RCMP report was not made public.

Mr. Robert Van Adel: No, but it was a negative.

Mr. Michael Robins: They did not find anything, but they don't make the reports public.

The Chair: Joe, thank you very much.

If there are no other hands, we'll let Michael wind it up, the last bat. We have one hour for the first session, then we suspend and we have an hour with the Canadian Nuclear Safety Commission.

Mr. Michael Chong: My understanding is that the contract that AECL signed with MDS Nordion specifies that if there are cost overruns, they are to be jointly shared.

My concern is that since this is a crown corporation, taxpayers would be on the hook for cost overruns. Last year you made a small profit, but this would be eaten up if we ran into significant cost overruns. Could you assure this committee that this is not going to happen, or at least quantify the risk we're running?

Mr. Robert Van Adel: You're absolutely correct. The commercial contract between AECL and Nordion for the completion and construction of these isotope production reactors is a sound commercial contract. In essence, it says that these are one-of-a-kind reactors; that there are probable risks, particularly in the commissioning process; and that costs will be shared 50-50. There are many other cost-sharing provisions.

The matter of how commercial issues are settled is now under consideration. Nordion and AECL have agreed to enter into an arbitration process. An arbitrator has been appointed and we're currently in arbitration, scheduled to be settled by September. In the meantime, AECL has a risk evaluation process, an audit committee of the board, and a risk review committee of the board. These groups have been overseeing this transaction. We've been reporting it on an ongoing basis, and we take provisions against the prospect of possible settlement.

Mr. Michael Chong: You've already taken provisions?

Mr. Robert Van Adel: Yes, and when you see us reporting our profit, it's net of the provisions that have been set aside. Those provisions are reviewed not only by the board but also by the Auditor General. They are approved annually as part of our audit.

Mr. Michael Chong: Are you comfortable with the provisions at this point?

Mr. Robert Van Adel: Yes.

Mr. Michael Chong: The Canadian government gives AECL approximately $100 million a year. Would you be amenable to a new framework in which the government didn't subsidize you at the current level, in which the market is opened to more competition? Do you see this as a long-term goal, or do you think this crown corporation will always rely on money from the federal government for R and D?

● (1625)

Mr. Robert Van Adel: We have been working aggressively over the last four years to disaggregate the corporation, and to separate completely the appropriated amount that covers the national labs, the waste facilities, and other things we would do as part of our public policy mandate from the commercial side of our business. The government can look into the organization today and see profit and loss, and other financial statements that are produced, that clearly separate the business. You can see that we've established the national labs on a financially sound basis, with sound financial reporting. You could today literally separate the two, have the appropriated amount run as a government department, say, and you could invite the private sector to invest, or even sell off the commercial asset. Of course, whether or not you decide to do that as a matter of public policy is another question.

Frankly, we've worked very hard—with Finance and the other central agencies, the Auditor General and Comptroller General, and with NRCan—to deliver this transparency and clarity. Today, there is a portion of AECL's activity, whether it's within AECL or in some other organization, that the Government of Canada is going to have to support for many years to come. It's a legacy environment. It's there from the forties, and it has carried on over the years. And you can separate it entirely.

The Chair: Very quickly, Michael, because Werner would like to jump in with a short one as well.

Mr. Michael Chong: I'd just like a quick clarification on an answer to an earlier question I had.

Can you tell this committee about the amounts of the loan provisions, or the loss provisions, whatever you term them? I'm talking about the provisions you have for the cost overruns with MDS Nordion. What are your plans in the event that the provisions aren't enough, or in the event that the arbitration comes back and the provisions are more than adequate and you have a surplus?

The Chair: Thank you, Michael.

Is a quick answer possible?

Mr. Robert Van Adel: No. I'd rather....

The quick answer is that we're currently in mediation. It's a formal process. Both parties have agreed not to disclose the nature of the discussions at this date. I would prejudice those by giving you a number, because it would simply say to the other party, “Here's what I think it's going to cost me if things go one way or the other”. So I'd rather not disclose the amounts.

Suffice it to say that the Auditor General and our external auditors, in their review and in signing off on our financial statements, do examine that question very carefully: are these provisions enough in view of what might occur? They've been satisfied and have approved our annual financials on the basis of that each year, and they will again. They're about to close the books in the next few weeks. So you'll see in our annual report how that's dealt with.

Mr. Michael Chong: What happens with the surplus?

Mr. Robert Van Adel: We have other resources. Look, we made a $76 million operating profit this year. As we sign the refurbishment for Bruce Power and other things this year, our financial strength next year and our cash reserves are extremely robust. So we have other resources. Even if the amount of the provision does not prove up, we're not at the bottom of the cookie jar just yet.

The Chair: Thank you.

Very briefly, Werner.

Mr. Werner Schmidt (Kelowna—Lake Country, CPC): I'm not going to ask a question, Mr. Chair, because I think that would take us too far afield. And Mike asked some good questions.

I think that was a very significant presentation, and I want to thank you for coming here. I also want to encourage you to do a good job, and you have done that. The most important part, though, is to make sure that you as a corporation are aware of our interest to make sure you do make money and at the same time promote innovation and technology advancement in the world.

We need nuclear energy—that's the issue here—but I think we do need transparency and clear accountability of where the money goes. I think you've answered that question in part. I also think there is some reason for us to be somewhat...well, not only a little bit concerned. The $100 million that's now going to be given by Parliament is one thing, but I notice that in your 2003-04 report, although the appropriation was somewhere around $100 million, you actually spent $178 million of federal funds.

The point we are registering is let's tell it the way it is. Let's make sure we have the safety and security of the public in place, but recognize also the need we have for nuclear energy. I think you have a great challenge before you, and I want to commend you for what you've done so far, but I don't think you've gone as far as you probably could have gone.

● (1630)

The Chair: Thank you, Werner.

We're going to thank our witnesses and suspend.

Thank you, gentlemen, for being here.

We're going to suspend for one minute, as we invite the representatives of the Canadian Nuclear Safety Commission to come to the table.

● (1630)

(Pause)

● (1633)

The Chair: I'm going to call the second half of this May 2 meeting to order.

We are pleased to have with us the Canadian Nuclear Safety Commission, including the president and chief executive officer, Linda Keen.

Thank you very much for being here, all of you. You're aware of this, of course, but for the record, we are continuing our study of estimates. In this case, it's the CNSC estimates.

Ms. Keen, I suppose you're speaking for the group. We'll invite you to speak for five to seven minutes, maximum, and we'll have time for some questions after that.

Again, thank you for being here. I invite you to proceed.

Ms. Linda Keen (President and Chief Executive Officer, Canadian Nuclear Safety Commission): Thank you very much.

Good afternoon, Mr. Chairman, and good afternoon, members.

I am the president and chief executive officer of the Canadian Nuclear Safety Commission, which is Canada's nuclear regulator.

[*Translation*]

With me today is Mr. Ken Pereira, Executive Vice-President, Operations Branch, at the Canadian Nuclear Safety Commission. Ms. Helen Bélanger, Director of Finance, is also with me.

[*English*]

I appreciate this opportunity to speak to you today about the important role that the CNSC has and to discuss some of the initiatives that we have in place to create a regime that is effective, efficient, and transparent in terms of nuclear regulation in Canada. I'd like to talk to you a little bit about some of the future challenges we have.

First of all, the CNSC is Canada's nuclear regulator. It derives its authority from the Nuclear Safety and Control Act, which is modern legislation that came into existence in May 2000. The mandate of the CNSC is very clear. We regulate all activities related to nuclear energy and nuclear substances in a manner such that the development and use do not pose an unreasonable risk to health, safety, the environment, and national security, and that these activities adhere to Canada's international commitments on safeguards and non-proliferation.

I wish to emphasize that the CNSC neither opposes nor advocates the use of the nuclear industry or nuclear energy, but regulates in the public interest. Canadian citizens are the only clients of the CNSC.

Functionally, we report to Parliament through the Minister of Natural Resources, but we do not report to the Minster of Natural Resources.

There are two components to the CNSC. One, of which I am the president, is a quasi-judicial administrative tribunal. It is responsible for regulatory policy and licensing decisions. There are seven members on this commission. We are GICQs, which means we serve at good behaviour, not at pleasure. This maintains the independence of the commission members during their tenure.

The staff component is about 520 people. This is mainly made up of engineers, scientists, and other very highly qualified professionals. The CNSC staff supports the commission. It implements the decisions, but it also delegates the authority for a lot of the small licences. We have about 4,500 licensees across Canada. Most of our staff are based in Ottawa, but we also have personnel at all the power reactor sites. We also have people in Saskatoon, Calgary, Mississauga, and Laval.

● (1635)

[*Translation*]

The scope of our work is very broad. This includes regulating nuclear plants; uranium fuel manufacturers; uranium concentration mines and plants; nuclear material treatment facilities; industrial users of nuclear material, such as hospitals; research facilities, such as TRIUMF's and Canadian Light Source's; nuclear material and equipment importers and exporters; and finally nuclear waste management facilities.

[*English*]

In addition, since 9/11, one area that's received significant attention is the area of nuclear security. Recently I was asked to be a keynote speaker at an international conference on nuclear security in London, England, outlining the Canadian approach.

Our regulatory philosophy is very straightforward. Licensees are responsible for all aspects of operating safely and in compliance with regulatory expectations. The CNSC is responsible for the regulatory aspects under the act. As per government policy, the CNSC's costs of regulation are recovered by the Government of Canada through fees, as appropriate, to licensees, as outlined in the cost-recovery fee regulations.

[*Translation*]

CNSC firmly supports the federal government's intelligent regulation program, and its way of carrying out its activities is consistent, in many ways, with intelligent regulation principles.

[*English*]

We also operate in a very open and transparent fashion.

There are constraints. These constraints are personnel-protected information, commercial confidential information, and security-related information, but there are a number of ways that we make sure our activities are transparent. We have extensive consultation on proposed regulatory changes. We have an openness for improvements in the regulatory process. Our hearings are open to the public, with interveners who come to address any issue they wish before the commission; all the materials put before the commission are available; and we publish the decisions of the commission, including reasons for our decision, on the website.

Whenever possible, we try to use expertise in other areas. For example, we have an MOU—a memorandum of understanding—with the Government of Saskatchewan that looks at the issues of mining regulation in Saskatchewan. We also work with Environment Canada, the Canadian Environmental Assessment Agency, and Public Safety and Emergency Preparedness Canada through MOUs.

In addition, we work closely with the Department of Foreign Affairs and International Trade and the International Atomic Energy Agency because we are responsible for the aspects of safeguards and non-proliferation on the sites we regulate.

These international organizations also help us to benchmark our progress as we progress towards excellence. Three weeks ago I chaired the third review meeting of the Convention on Nuclear Safety, at which 51 countries benchmarked themselves and peer reviewed on their progress on nuclear safety. Canada fared well in this review. These are just a few examples of ways we believe we regulate efficiently.

Finally, the recent performance in management assessments by Treasury Board, the Auditor General, and others has shown that CNSC is well managed and is in full compliance with the various government processes for a regulatory agency.

Turning to the future, our report talks about the challenges we face in the future. We have completed a very comprehensive environmental scan that looks at the challenges we and the industry are going to face over the next ten years. Many decisions have to be made by government and by industry as to this future. Some of them are refurbishment at existing facilities, the possibility of building new power facilities, the management of nuclear waste, expected mining growth in Saskatchewan, continuing growth of health clinics and cancer clinics, and more stringent safeguards as countries are trying to use nuclear sources for nefarious means.

The industry, in large part, will pay for this. They understand and have made it clear that an independent, appropriately funded regulator is important to the way they do business. They will not start the projects without regulatory approval, and that depends on CNSC being adequately resourced.

I hope I have given you an overview, Mr. Chairman, in terms of the dynamism that exists at the CNSC. It has gone through a considerable amount of change in the last five years, and I believe will go through more change in the future. Our goal is to be open and transparent, and we look at the proceedings today as an opportunity to illustrate to Parliament this openness and transparency.

Thank you very much. Merci. I'm available for questions if you so wish, Mr. Chairman.

● (1640)

The Chair: Thank you, Ms. Keen.

I will start with Michael Chong.

Mr. Michael Chong: Thank you, Mr. Chair.

Thank you very much for your presentation, and thanks to the witnesses for appearing before this committee.

One of the reasons we wanted to have you here today is because of all the recent media reports that have been flying around over the last three or four months about a very public spat between you and AECL. So maybe you could just comment on that to begin with.

Ms. Linda Keen: I think the member is referring to the sludge issue that made the newspapers quite recently, if I'm correct. I'll start, and then I'll turn it over to Mr. Pereira, because his staff are the ones responsible for this compliance issue.

The commission has heard in public hearings twice about the issue of the sludge at the Chalk River site. The first was a report of the incident. This is required by the commission. The staff must report serious compliance issues to us. Further to that, the staff, which Mr. Pereira is in charge of, held a review of the situation, including the performance of the regulator. This is a normal process for us. We review not only the performance and the root cause of the incident, but also the role of the commission staff in that. So a second hearing on this issue was held.

The commission has accepted the results of this—all of this is public information—and has asked both the AECL and the staff to come back in September with a full report on what they're doing on this issue.

With that sort of framework, I'll turn it over to Mr. Pereira, who will give you the details.

Mr. Ken Pereira (Executive Vice-President, Operations Branch, Canadian Nuclear Safety Commission): Thank you very much.

The sludge in question was a very low-level mixture of industrial chemical hazards and radioactive hazardous material that was being disposed of in an area intended for dry material. What was being placed in there was very liquid material. Based on that, our inspector required AECL to cease the practice. Then we commissioned an independent inspection team to examine the circumstances of what was going on.

The findings indicated that the placement of the sludge there did not pose a hazard in any way to the public or the workers in the facility, because of the remoteness of the waste management area. Nevertheless, AECL was not complying with the terms of their licence, so they have ceased the practice of placing the sludge in that area and are developing a plan for more reasonable handling of this material over the long term.

● (1645)

Mr. Michael Chong: How radioactive was this sludge?

Mr. Ken Pereira: The level of radioactivity was very low. One could argue whether it was above allowable limits or just at the level limit. So it was not very radioactive; nevertheless the placement of the material in that area, in our view, did not comply with the restrictions in the licence.

Ms. Linda Keen: I'd like to add that it is important to note that we regulate AECL as we do any other licensee and company. Whether it's a federal crown corporation or not, we regulate them in exactly the same manner that we regulate any licensee. So the action that was taken by the commission was commensurate with regulatory action we would take against any licensee.

Mr. Michael Chong: A number of the comments you've made in public seem to suggest that AECL's response to you finding them dumping the sludge was less than satisfactory. Are we on this committee to be at all concerned about either your relationship with AECL, or with AECL on an ongoing basis in terms of their compliance with their licence, or is this something we don't have to worry about?

Ms. Linda Keen: First of all, the relationship—

Mr. Michael Chong: Let me just add one more thing. This committee has oversight for both organizations, and even more generally, if I were Joe Public reading some of these media reports, I might raise concerns about how things were being run.

So have things been resolved, or do we need to be concerned about their reaction to that dumping, or other incidents that have gone on?

Ms. Linda Keen: First of all, the relationship between CNSC and AECL is a professional one, but it is a relationship between a licensee and a regulator. It is an appropriate relationship. I don't think there's any sense on either side that it is other than that. So I don't think there are concerns about the relationship. I think there's a well-documented relationship.

The concerns shown by the commission were very clear. As Mr. Pereira said, there is a licence—a set of licences, actually. There are 11 licences that AECL holds on that site for various facilities. The obligations AECL has under those licences are very clear. There's a very clear approach toward the protection of the environment, which CNSC has in its regulatory philosophy and its regulatory approach to AECL.

It is public record and public knowledge that at the first hearing, AECL's response—in our view as the commission—was unsatisfactory. They said they stopped as soon as an inspector told them to stop, and not in line with their own policies of protecting the environment. The view of the commission was very clear that they felt any licensee should have their own environmental policies and be following them. They shouldn't require regulatory action to stop unsatisfactory practices.

On the other hand, they have stopped those practices. They have cooperated in the independent review. They are taking action now to review that. They will be coming before the commission in September with their action plan to review that. So we consider that their response in the compliance action is satisfactory, and they will be going forward.

The Government of Canada, as you note, is the shareholder. So I'll leave the views of the shareholder toward a crown corporation to government policy.

● (1650)

Mr. Michael Chong: Okay. I have another question. I believe you mentioned in the past—correct me if I'm wrong—that there were some growing pains when the legislation was put into place and CNSC was created. There were some issues around record-keeping, communications, and what not, at the commission. Have those been rectified?

Ms. Linda Keen: Again, I think the member is referring to the specific instance within AECL and what our independent review concluded were deficiencies in our regulatory approach. Yes, those have been rectified. Mr. Pereira, over the last three years, since he's been the vice-president, has put in place a significant approach in that area. We're using a more holistic team approach to regulation in general. But the environment is a particular area that we've all had to work on very hard—the team approach for the environment. So those have been rectified.

The Chair: Thank you.

We'll go to Denis, and then Joe.

[*Translation*]

Hon. Denis Coderre (Bourassa, Lib.): Thank you very much.

Ms. Keen, with reference to what my colleague said earlier, I'm trying to understand... We can talk about reports, we can talk about regulations, and so on, but...

[*English*]

Is it settled? Is it still radioactive? Has the issue been taken care of? Should we be worried? We're dealing with radioactivity here and everybody is listening to us. Is there an issue here? Is it over? Is it done?

Ms. Linda Keen: I'll just give you—

Hon. Denis Coderre: Yes or no. I don't want to know about the rulings and stuff like that. I want to know if we have a problem now.

Ms. Linda Keen: The activity has stopped. The AECL is no longer adding to the sludge that was put in this facility. Clearly, the facility still contains some—as Mr. Pereira has said—very low level of radioactivity. We had concluded, from the very beginning, that the risk to the environment and to persons was low or non-existent, so it is very low risk, in terms of the substance that's there.

It's a very old site; it has a lot of buildings on it, and it has a lot of various types of materials on that site. AECL is coming before the commission in two weeks to talk about their waste management plans in general and for the site as well.

So in terms of the risk, Mr. Chair, I can say that the risk of that site is very low. In order to protect the environment, it was important for them to stop and to find other methods of treating that.

[*Translation*]

Hon. Denis Coderre: It seems important to me. I'm referring to communications only. The average citizen will hear this or read in the papers that it seems included...

[*English*]

The bottom line is, are we taking care of it? Is that your mandate? You're doing the follow-up, but is it your mandate also to make sure that you have that executive power to get things done, or is it just throwing the ball at each other to try to define what the...?

The question is pretty simple.

Ms. Linda Keen: The AECL is responsible for the management of waste at that site. It is AECL's responsibility to handle all the environmental issues at that site and to treat the waste properly. We have concluded that the placement of that material on the site, at this point in time, is not dangerous to the environment and to persons at a reasonable level of risk—there's never no risk—and we're comfortable about that.

Adding to it would have been difficult for the commission to accept for two reasons. One is that it's a liquid sludge, as Mr. Pereira said, and that seeps into the water table, and there are other issues to do with that. Two, it isn't good environmental practice. Companies have, including AECL, an environmental plan, and it was in violation of that environmental plan as well as the regulations.

We treat the communications with the public very seriously, and we think the risk is acceptable on that site as it is now. We will be looking at issues towards the whole cleanup of that site in the long run, which has been there since the war, and that will be part of that cleanup plan.

● (1655)

Hon. Denis Coderre: So you have ongoing watchdogs?

Ms. Linda Keen: Absolutely, more than ever.

Hon. Denis Coderre: Thank you. That's simple. That's a good answer.

[*Translation*]

You talk of independence. I totally agree on autonomy: we need an organization that's not in the pay of any company whatsoever. However, you say in your notes that the industry “will pay most of the expenses associated with regulatory oversight [...]“

Could this not ultimately create a problem? Even if the industry is honest, are you not somewhat dependent on what they will give you? Will this eventually undermine your autonomy?

[*English*]

Ms. Linda Keen: Yes, Mr. Chairman, the way fees are collected by the government is extremely important The fees are paid to the Government of Canada. They are not paid directly to the CNSC. For example, if there was ever an issue where a licensee wasn't able to pay fees, the government would ensure that the CNSC had the necessary amounts through our appropriations to pay our staff and to go forward. This is one reason why the arrangement is such as it is, to preserve that independence. So, yes, we are very cautious about that.

[*Translation*]

Hon. Denis Coderre: You said, with good reason, that since September 11, 2001, i.e. since the New York and Washington events, we must be increasingly vigilant as regards our own facilities.

I heard you talk about regulations, management and audits. Based on the announcements our government has made since these events, do you believe we are on the right track? Are things done appropriately? Does your role also include qualifying investments and ensuring there is good management? Basically, I want to know if you can give your point of view on a situation. I also want to know what your evaluation tools are.

[*English*]

Do you have any evaluation tools? You're talking about benchmarks and stuff like that, but how can we qualify the situation right now since spending the amounts we have put forward to protect ourselves?

Ms. Linda Keen: Mr. Chairman, the member is absolutely correct that since 9/11, the issue of security in general in the government, and certainly under the CNSC's regulatory regime, has changed considerably. Immediately after 9/11, we and the AECL put in place enhanced security measures at all nuclear facilities, including all nuclear power stations. Since that time, the commission has passed an emergency order requiring that additional measures be in place. So there's been considerable investment by all the nuclear facilities and AECL in producing the necessary level of security.

As for the way we've benchmarked ourselves versus international standards, the International Atomic Energy Agency created a process by which we were able to benchmark ourselves at an appropriate level. I must say, we don't share information on actual site security with anyone at all.

An hon. member: Good.

Ms. Linda Keen: It is highly secure.

In terms of the way we approach it, there's a method called the design basis threat analysis, and every facility in Canada has been analyzed as to the threat on its site. There are some levels of threat that are common, but there are, for example, the small Gentilly 2 or single-unit stations, and you have eight units at Pickering or Bruce. These facilities are different and have to be rated somewhat differently.

That said, there are five measures in place at every one of these facilities. There is enhanced security screening of all people who go in, called dual verification, including hand or eye security. We have security clearances for everyone working in the stations and in fact for all CNSC personnel as well. We have armed guards at all the stations, and this is international.

Hon. Denis Coderre: That's new.

● (1700)

Ms. Linda Keen: That's new, and it's a requirement put in place by us. We have various types of barriers that are security specific, which is just to say that they have been enhanced.

We pay attention to what's going on around the world, but particularly in the United States. We have spent a great deal of time benchmarking ourselves, including the quality of our armed personnel, against our American counterpart. We have put a great deal of effort into that.

The government, through Public Safety and Emergency Preparedness Canada and PCO, has remained completely supportive of the efforts we have made. As I said in my speech in London, Canada would be considered as being at the top rating in terms of nuclear security now.

[*Translation*]

Hon. Denis Coderre: Maybe in terms...

[*English*]

I have two short points. First of all, I'm pretty personally satisfied with the new security process that we have in mind. I think we're pretty well secure, except for....

[*Translation*]

I'm not sure that, with respect to planes flying over our territory... Recently, a report showed that a Cessna could fly over Gentilly II without being bothered.

[*English*]

Maybe that would be something you should take a look at.

[*Translation*]

I totally agree that an organization like yours should have enforceable, independent and autonomous power, and that it should have the power to take action. However, as I am a novice, I would like you to tell me about jurisdictions. You say you signed an agreement with Saskatchewan, among others. If, for example, something should happen at Gentilly II, would you have full power, or is there still a jurisdiction problem between the provincial and federal levels? Do you have full power because you work with Environment Canada? In terms of territorial management, there are probably legal tangles that are very profitable for certain constitutional lawyers. In terms of application, I'm not sure about the situation. Would you have full power, if a problem occurred?

Ms. Linda Keen: Mr. Chairman, it is perfectly clear that CNSC has full power as regards nuclear materials and plants. Three weeks ago, I met with the new Hydro-Québec president and a representative from the ministère de la Sécurité publique du Québec to reinforce the authority of the Canadian Nuclear Safety Commission over the nuclear plant. There is no doubt about the commission's jurisdiction. It is federal.

[*English*]

The Chair: Merci.

We have Joe, please.

Mr. Joe Comartin: Thank you, Mr. Chair.

Thank you for being here, Ms. Keen. You actually didn't answer the question that I also share with Mr. Coderre on the flyover regulatory framework, which I have to say I haven't looked at in about three months. At that point I have to say I was not satisfied that we had addressed the security issue sufficiently. Could you advise us what the situation is now?

Ms. Linda Keen: The question the member asks is important because we're talking about prevention of sabotage or terrorism to nuclear facilities.

The regulations in terms of aircraft are actually Transport Canada regulations. They have a specific regulatory requirement in terms of height, the distance above facilities, and flying over facilities that covers not only nuclear facilities but other facilities that are considered important facilities, including Parliament. They have established a height and also an area, and people are required not to go into these areas.

It's really important to also assure members of what we call the robustness of those nuclear facilities. These nuclear facilities are extremely robust structures. There are also procedures in mind that will shut down the reactor if things happen, for example, from the air or from other areas as well.

There are studies under way both in Canada and the United States—and also in Europe—to look at the new facilities and the robustness of new facilities. Probably new facilities would be even more robust.

Because of the Government of Canada's work at preventing terrorists, for example, from getting into airplanes and getting into airports, plus these Transport Canada regulations with regard to height over facilities, plus the fact that these facilities are very robust, our risk assessment is that these facilities are robust.

As part of our security regulations, though, we are continuing to look at these issues. For example, if a new facility was built in Canada, we would be looking very seriously at some of the tests that have been done around the world in that area. That said, we believe everything's been done to make these facilities as robust as possible.

Would someone be able to enter that airspace, say at Gentilly or Pickering or anyplace else, if they had nefarious means? Very probably they could, just as they could in other facilities around the world as well. Within a risk profile, we feel comfortable with the approach that's been taken.

● (1705)

Mr. Joe Comartin: Let me challenge you on that, Ms. Keen. The last engineering reports I saw said that none of the nuclear reactors in Canada had been analysed as to whether they could withstand a direct hit by a commercial airplane, as we saw happen in Washington and New York. That was the last I saw, and that was only a few months ago. We had not done that. We had not analysed the structure of the buildings containing the nuclear reactors as to whether they could withstand a direct hit.

Ms. Linda Keen: The studies we have done with the United States are security protected. We have cooperated with the Americans in looking at some models of the CANDU reactors as well as reactors that have been looked at in the United States. We have also asked the licensees, be they Ontario Power Generation or Bruce Power or whatever, to also do further studies with regard to robustness and the tightening up of those facilities.

So there have been studies done. There have been studies done for many years before 9/11. There have been further studies done in cooperation with other areas. There have not been the specific studies done that have been done in Europe, for example, which have been looking at how future reactors will look in terms of it. We do know a great deal with regard to the robustness of those facilities.

Mr. Joe Comartin: Which you can't disclose to us?

Ms. Linda Keen: No. But we have analyzed those results.

Mr. Joe Comartin: Mr. Pereira, going to the sludge, I'm not clear. Was the sludge in a container, or did it have access to the natural environment?

Mr. Ken Pereira: The sludge did have access to the natural environment, but it was placed in an area that was designated for waste management. It was waste management area C at the Chalk River laboratory, which was designated for storage of nuclear waste.

Mr. Joe Comartin: That was for dry waste, not for liquid waste?

Mr. Ken Pereira: That is correct.

Mr. Joe Comartin: Is it possible for this waste to percolate through the soil or leach out in some other fashion?

Mr. Ken Pereira: Yes, it is possible for the liquid from the waste to percolate out. Most of the radioactivity is contained in the solids in the sludge, but there would be some activity and hazardous chemicals in the liquid that could percolate out, and that was the reason we asked AECL to cease the practice.

Mr. Joe Comartin: What about cleaning it up so that it couldn't percolate up—getting it into a container?

Mr. Ken Pereira: That is an option AECL is now evaluating as part of what they've been required to do, and they will be presenting a plan of action for review by CNSC staff and for reporting to the commission at a meeting to be held in the fall.

● (1710)

Mr. Joe Comartin: Will that report be public?

Mr. Ken Pereira: Yes, it will.

Mr. Joe Comartin: Will the meeting, when they report, also be open to the public?

Mr. Ken Pereira: Yes. All the meetings of the commission and the hearings of the commission are public meetings.

Mr. Joe Comartin: Our researchers have provided us with an extract of a report. There was obviously some significant concern by your agency that the shutdown wasn't completed. This is dated February 24, 2005. Are you aware of the report?

Perhaps I can just go on, because maybe this will help jog your memory. The report, in terms of what I think I'm hearing from the commission and commission staff, seems to be reacting rather negatively to the casual nature in which AECL handled this particular incident, in not shutting the operations down completely, as they had indicated they were going to.

Ms. Linda Keen: This issue is with regard to the MAPLE reactor, and it did come before the commission. The report from the staff was that despite assurances by AECL that the Maple reactors were in guaranteed shutdown state, which is a requirement—and it was a written confirmation by AECL—AECL had not put these reactors in guaranteed shutdown state. That's the issue that came before the commission.

Mr. Pereira, do you want to add anything to this?

Mr. Ken Pereira: Sure. The situation is one in which there is a defined state in which licensees are required to maintain reactors when they're shut down. AECL had shut down the reactor, but they hadn't achieved what they had committed to in advance of the procedure. They had committed to maintain the reactor in a certain state, and because of an inappropriate sequence of actions they ended up in a situation that was not exactly what they had committed to do in the first place. That was the issue. The reactor was shut down and remained shut down right through the procedure, but it wasn't in the defined state that it had committed to place the reactor in.

Mr. Joe Comartin: I just have a sense, in the tone in the report, of a fairly negative reaction by your staff to the—I can only characterize it this way, and you can agree or disagree—casual nature in which AECL responded to the concerns being expressed. They didn't really seem to be taking it seriously.

Is that the way your staff saw it?

Mr. Ken Pereira: In a sense, yes. We seek from licensees that they manage their affairs in a systematic manner following appropriate quality procedures, and what you're referring to is perhaps a disappointment on the part of the regulatory staff that AECL hadn't followed what is accepted practice for a systematic management of safety.

Mr. Joe Comartin: Would you get that kind of response from any of the other operators of nuclear sites in this country?

Mr. Ken Pereira: From time to time, yes, we get similar performance on the part of the licensees, but that is part of the regulatory process. The regulator has to assert the requirements to specify to the licensees what particular approach they need to follow and what is acceptable practice, and from time to time you get lapses from certain licensees and then you see improvement and good performance for many years. But that's regulation; it's what we do.

Mr. Joe Comartin: Do you take any steps to enforce against this kind of conduct?

Mr. Ken Pereira: Yes, we do. We have a graduated enforcement policy that starts off with a written statement of requirements, and it goes on to the point where the commission staff can issue orders, which are legal requirements for compliance. The ultimate is prosecution, and we do prosecute licensees from time to time—not very often, but we do use the order mechanism frequently to get prompt action when there's a safety concern.

Ms. Linda Keen: Mr. Chair, could I just add one word?

I think the industry is very conscious of the role of the regulator and the fact that all these proceedings are public. It generally is the case that the licensee moves very quickly to address—

● (1715)

Mr. Joe Comartin: But they didn't here.

Ms. Linda Keen: No. They did move to put the MAPLE into guaranteed shutdown state after they had reported that.... What we were saying as a commission was that you said you were going to do it on this date and you didn't do it—so why didn't you do it? That's the way the commission asks those questions, generally, of CEOs. Generally, the CEO comes before the commission and has to explain to us why they didn't do what they did. By that time, they've put it in the guaranteed shutdown state.

But that's not good enough for us. We want to know why they didn't do it when they said they were going to do it, or when they were supposed to do it, under regulatory action. That's important for us to do.

The Chair: Thank you.

In the last 12 or 15 minutes we're going to try to share the time among Brad and Werner and Michael.

Brad, please.

Mr. Bradley Trost (Saskatoon—Humboldt, CPC): Thank you, Mr. Chair.

This first question comes from a briefing that Dr. Terry Rogers gave to a little meeting I had. During that, he was talking about a report CNSC has received regarding recommendations on the licensing process. I was just curious about some of the recommendations received there, and what the status is in terms of implementing these recommendations. Again, this was only from a very summary briefing. I'm fishing here a little bit, so could you give me an idea of some of the recommendations and where they're at?

Ms. Linda Keen: I would just like to provide two words of framework, and then I'll turn it over to Mr. Pereira.

Over the last four years the commission staff has undergone a complete review of all the regulatory framework, to make sure we have an updated regulatory framework in line with our new act. As part of that, there was a development of a licensing basis document, which is good practice, good regulatory governance. This is one of the important foundation documents for a regulatory agency.

I'll just turn to Ken, because Ken's staff did the work.

Mr. Ken Pereira: Thank you.

The document you're referring to is a licensing basis document for the design of power reactors. We undertook this development.

The world has many years of experience in operating nuclear power reactors. The original design standards were based on analysis and on looking at accident scenarios to develop the requirements. As time has gone on, in the international community, in the International Atomic Energy Agency in Vienna—this is like the UN of nuclear industry—there has been thinking on better informed approaches to the design of nuclear reactors. In the International Atomic Energy Agency a standard has been developed called NSR-1, which is the IAEA standard for the design of power reactors.

What we are doing in Canada is aligning our design standard for nuclear power reactors with the international practice, with international consensus, bringing into play consideration of risk when one looks at accident analysis, marrying the old deterministic rules with what we have learned from operating experience and with current thinking on risk management. We are modernizing our regulatory requirements for the design of power reactors and aligning them with what is believed to be the best thinking from the international community, from the International Atomic Energy Agency.

Ms. Linda Keen: In fact, if there is a decision to build new reactors in Canada, this will provide more predictable regulatory certainty, because it's a framework upon which decisions can be made.

Mr. Bradley Trost: So the recommendations that have been made are already being implemented or—

● (1720)

Ms. Linda Keen: In the process.

Mr. Bradley Trost: —are in the process. Thank you for that one.

In regard to my second question, I'll give you a bit of background. I'm a mining geophysicist by trade, from Saskatchewan, and I'll admit that the mining guys have complained, to a degree. Can you explain the rationale? I can understand from the processing or milling, but why do you have the regulatory oversight on uranium mining—just exploration, expanding the mines, and so forth?

It's joint jurisdiction with Saskatchewan. To a degree, would there not be some heavy, heavy overlap with some provincial natural resources—environment and so forth? We in Saskatchewan—and I think I can speak for a large portion of the people involved and knowledgeable about it—would like to see a system that would be more efficient and quicker so that we could expand our mines much more quickly and the amount to mines.

Could you explain what the rationale would be and maybe ways that this could be made more efficient so that when we do want to expand our mines, the process can speed up considerably?

Ms. Linda Keen: Thank you very much for the question.

The jurisdiction of the Canadian Nuclear Safety Commission with regard to uranium mining is very clear under the Nuclear Safety and Control Act. All substances that are nuclear are under the jurisdiction of the CNSC.

There is jurisdiction in Saskatchewan with regard to two areas where we work with them very closely. One is environment and one is labour, and we have had an MOU in place for two years with Saskatchewan Environment and Saskatchewan Labour that is seeking to find ways, particularly in the inspection of the facilities, where we could do one inspection and that would serve the purposes of all jurisdictions, provincial and federal.

That said, it is absolutely clear under our act that we have responsibility to ensure that the environment, for example, is protected in Saskatchewan. So how do we find ways that we can work together with Saskatchewan Environment so that both are done?

The commission just had a report less than a month ago on the MOU in Saskatchewan—it is available. The MOU has been, to date, successful. The industry would like us to go faster and further. Saskatchewan Labour is part of this too because of responsibilities for occupational health and safety. We're concerned about workers' health as well.

So I think the industry—you're right—would like us to go faster and further, and we will go as fast as we can, while preserving our responsibility to Canadians. By definition, regulators are conservative, and we're moving ahead on that.

Mr. Bradley Trost: Small-*c*.

Ms. Linda Keen: Yes, small-*c* conservative.

We are risk-averse, and our job is to make sure we protect the environment.

The Chair: Okay, Brad?

Mr. Bradley Trost: Yes, that will do.

The Chair: Thank you.

[*Translation*]

Serge, do you have any questions? No?

[*English*]

It was actually Michael's idea to do these estimates. Fittingly, we're going to finish with him.

Mr. Michael Chong: Thank you, Mr. Chair.

I have two different sets of questions. The first is a continuation of what my colleague across the way, Mr. Coderre, brought up. It has to do with nuclear security.

Maybe you could explain to us exactly how the relationship between you and your licensees works in terms of who's responsible for what when it comes to the security of our nuclear sites.

Ms. Linda Keen: In nuclear security, the role of the licensee is the same as it is in the safety area. They are responsible for the site in terms of security. The regulatory regime we put forward is currently under an emergency order that we issued right after 9/11, and we're moving towards comprehensive security regulations. This is the second round, and it will be coming back in terms of gazetting and so on, for security regulations. So this is the format that is used.

I think the security regulations we put forward are quite directive—let me put it that way.

We have staff—most of them are retired RCMP, in fact—specialized staff who are responsible for the compliance. At every licence that comes forward to the commission we look at the security areas to make sure they're doing what they have to do in security, just like we do with the environment, safety, or anything else.

● (1725)

Mr. Michael Chong: Are all the licensees in compliance with what has been set out in your emergency orders?

Ms. Linda Keen: Yes.

Mr. Michael Chong: The other question I had concerned nuclear non-proliferation. You're given about $4 million or $5 million a year to be responsible for that.

My first question is, is it possible that Canadian technology, CANDU technology abroad, is being used for nuclear proliferation, and if so, what role do you play in that? Maybe you could give us some details on what actions or steps you've taken to ensure non-proliferation.

Ms. Linda Keen: We're responsible in two ways. We're responsible for the safeguards of the sites, the specific sites where materials are being held, which include the nuclear power stations as well as the waste management sites, and we are responsible for what happens in Canada. We're responsible to make sure there is no diversion of materials from those sites, and we undergo inspections and licences, just like we do on the other side of the business.

In terms of non-proliferation, there are international rules put forward. It is currently a very important subject. It's being discussed right now in New York. There is a four-week set of meetings on the convention, on the non-proliferation treaty.

In that case, what we're looking at is to make sure that for materials that are, for example, exported from Canada, we seek assurances as to what the destination of those materials is, be they substances, be it fuel manufactured from chemicals, for example, or be it equipment that could be used for both nuclear and non-nuclear means. It is our job to verify, before that export licence is given, where those materials are going. We do that by bilateral relationships with the countries where they go.

So there's a great deal of work done to make sure they're not used for nefarious means and that the country with which we have the MOU, the bilateral arrangement, is also checking to make sure that happens.

So is it absolutely impossible that these materials could go into the wrong hands? It's not possible for me to tell you that there is no risk at all, but do we do everything possible to make sure those materials do not fall into the wrong hands? The answer is yes, we do.

The Chair: Okay, Michael?

Mr. Michael Chong: Thank you.

The Chair: Thank you very much.

I will thank our witnesses, but I just have a couple of questions for my colleagues on future business.

Thank you very much to our CNSC witnesses today, and thank you for your apparently very satisfactory answers to members of the committee.

Colleagues, I just point out that I would propose that we do votes on our various estimate studies at the end of the session with John Efford, the Minister of Natural Resources, on May 16, if that is acceptable. We'd do them all then.

We have received from Minister Emerson the certificate of nomination for Jean-René Halde as the president of the Business Development Bank of Canada. So we've been asked to consider that nomination.

The only feedback I've had is that maybe a 45-minute session with him would be adequate. Unless there are strong feelings to the contrary, I'm going to try to schedule that in somehow in the next week or two. I suppose we'll know better in a few days what's going to happen over the next few weeks.

Finally, on Wednesday, half of our meeting is in camera with the FTC, the U.S. Federal Trade Commission, on Bill C-37. They wanted to brief us in camera on their experiences with the do not call list. That's their call. It will be by teleconference.

If you have any questions that you anticipate asking, as a courtesy we could submit them. I suspect that it will be a very helpful meeting whether we can do that or not, but if you have questions ahead of time, we would offer to submit them.

Mr. Werner Schmidt: Are they going to give us some detail of what they're doing?

The Chair: In one hour they will tell us as much as they can about how they manage their do not call system in the U.S.

Mr. Werner Schmidt: In particular, would they be dealing with the exceptions, the exemptions?

The Chair: I believe so. I'm sure you can ask. They will be well briefed.

Mr. Werner Schmidt: That's the key part.

The Chair: Yes. They will be well briefed.

Joe.

Mr. Joe Comartin: Have they given any explanation for why they want to do it in camera?

The Chair: They are in the U.S. Maybe it's for reasons of security, competition, jurisdiction. They contract it out to a supplier. AT&T is the contractor that delivers it. The FTC is the oversight agency.

I didn't feel it was our place to ask them why they wanted it in camera. We simply invited them to help the committee. In fact, it was Brian who suggested that we ask them. We asked them. This was their minimum. It was a small condition. So either we hear them in camera or.... It's informal, in camera, with translation, of course, and no transcript.

Finally, I don't have any more witnesses proposed for Bill C-37.

● (1730)

Mr. Werner Schmidt: [*Inaudible—Editor]*

The Chair: A lot depends on the next few days, what kind of wind is in the air in the next few days.

Mr. Werner Schmidt: What could possibly happen?

The Chair: Werner, will you let us know what's going to happen there tonight?

Mr. Werner Schmidt: I can tell you, if there's a guy who wants to appear before you, have him come in.

The Chair: I'll give you my cell. Call me after your meeting.

Anyway, we're going to proceed on the basis that we're going to go until June, so if you have any Bill C-37 witnesses that the clerk is not aware of, please let her know.

Remember that we have the Swedish delegation on Thursday morning from 11 to 12. I'm hoping not to be the only one there. They are parliamentarians from the industry committee of the Swedish Parliament.

If we get Bill S-18 referred to us by today or tomorrow, I will send an e-mail to ask if there's agreement—Bill S-18 is the census bill—to see if we can do a few witnesses before the Swedish delegation Thursday morning, if we can get a room and there's consent by members to do that. Otherwise we may not get Bill S-18 at all. Then we'll tag clause-by-clause onto some other meeting in the next week or so.

Are there any questions or comments on that very quick business meeting? We are getting down the chute here, no matter how you look at it.

With that, we're adjourned.

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