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—
Chair

Mr. Leon Benoit

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• (1105)

[English]

The Chair (Mr. Leon Benoit (Vegreville—Wainwright, CPC)):
Good morning, everyone.

We're here today to continue with our study of nuclear safety issues, including safety issues at the Chalk River nuclear reactor.

We have today as witnesses, from the Canadian Society of Nuclear Medicine, Christopher O'Brien, past president; from Anderson Soublière Inc., Jean-Pierre Soublière, president; from the University of Waterloo, Jatin Nathwani, professor and Ontario research chair in public policy for sustainable energy management, faculty of engineering and faculty of environmental studies; and from MDS Nordion, David McInnes, vice-president international relations, and Grant Malkoske, vice-president, strategic technologies and global logistics.

We will go into five- to seven-minute presentations for each group and then get directly to the questioning. We'll go in the order we have on the orders of the day, starting with a witness from the Canadian Society of Nuclear Medicine: Christopher O'Brien, past president.

Go ahead, sir, for five to seven minutes.

Dr. Christopher O'Brien (Past President, Canadian Society of Nuclear Medicine): Good morning. Thank you for inviting me. It's a pleasure being here.

My name is Dr. Christopher O'Brien. I'm immediate past president of the Canadian Society of Nuclear Medicine and president of the Ontario Association of Nuclear Medicine. And I'm medical director of three community hospitals in Ontario, so I bring a perspective on what happened in the community hospital setting across Ontario.

Nuclear medicine specialists do a five-year residency training program. A significant part of this training program deals with radiation safety. It deals with the concepts of how we protect our patients, how we protect our workers within the nuclear medicine environment, and how we protect the public from the inadvertent release of radiation from our labs. So we have a significant background. Many of our physicians are radiation safety officers within the hospital environment.

We are very familiar with the concept of ALARA, which means "as low as reasonably achievable". This is the radiation safety policy we follow to ensure that patients' care is not compromised as a result of the inadvertent use of radiation, and the concept of being reasonable is the underlying philosophy we follow.

What we would see within the community hospitals is somewhat different from what we would see in downtown Vancouver, Toronto, Hamilton, etc. We don't have the resources that many of these larger centres have, and nuclear medicine plays a very significant role in the management of patients in the rural community setting.

As medical director of three hospitals, I was acutely affected by the isotope shortage that occurred. We first got reference for this on November 27, and we started to gather information on how this was affecting our patients. By December 5, our nuclear medicine community put out our first letter of concern, as a press release dealing with the fact that many of our hospitals in the community setting were forced to start rationing access to health care.

On a day-to-day basis we weren't sure what patients we would be able to treat or how we were going to help them. We were able initially to maintain our emergency services, but as the crisis progressed—and this was a crisis in the rural settings....

I will grant that the impact was variable across Canada, with some centres less affected, but in the rural communities in which I work—Pembroke Regional Hospital, Stratford General Hospital, and Brantford General Hospital—we were significantly impacted by this. Two of my hospitals were actually closed for a few days because they had no isotopes available.

In my own hospital, towards the end of the crisis we were having difficulty maintaining emergency services, and actually, towards the end of the situation two of my patients came in on whom we were unable to do emergency procedures. This was dealing with blood clotting in the lung, which has a significant and high mortality rate if it is not diagnosed appropriately.

These individuals could not undergo a CT scan, because they had allergies to the x-ray dye, and they were in renal failure. So to the issue of whether these patients were placed at increased risk, the answer is, absolutely. Could these patients have died if they had not been appropriately taken care of? Absolutely.

This was a crisis. This was a situation in which, when you're in the trenches, as we were with the technologists, clerical staff, nurses, and physicians trying to deal with it, we had a tremendously difficult time trying to decide who would get what treatment when and how we would do it.

We have patients who were dependent on us for assessment for their heart. If they're undergoing chemotherapy, one of the requisitions will come down frequently to us stating, please do this urgently; we have to know how the heart function is so that we can determine whether the patient can undergo chemotherapy.

We had similar situations from orthopedic surgeons, saying to us, I have to bring this patient for surgery; we have to know what the heart status is. There were patients with lung cancer, breast cancer, prostate cancer. When trying to determine the most appropriate treatment available to them, we were not able to address those issues in a timely fashion. So we found ourselves in a crisis situation.

We found ourselves actually teetering on the brink of disaster just before the reactor was brought back online. It was at that point that in my own hospital, Brantford General, we had those two patients come forward and were not able to treat them appropriately. This was very frustrating for the patients and very frustrating for the emergency room staff.

• (1110)

These are people who come to the emergency room; this is not an elective procedure. They come in with acute chest pain. The possibility of it being a heart attack or a pulmonary embolism is a major discussion. So these are critical situations that have to be addressed in a timely fashion.

So what happened? Our doctors had to decide how to treat these individuals without knowing sufficiently what the actual underlying problem was. As physicians, part of our oath, as you know, is to do no harm. And to do no harm we have to actually know what is actually happening with the patient in a timely fashion so we can get the proper treatment done. We found ourselves in the very uncomfortable situation of perhaps doing more harm to our patients by treating them, because the treatments we use are not without risk. When you really want to start treating those individuals, you want to have a definite understanding of what you're doing.

Luckily, the patients did not die, but they were definitely placed at increased risk. And these patients, if they were inappropriately treated, could have died from complications from the treatment itself.

So from the community hospital setting... I will grant that it's variable across Canada. Out west, in Vancouver and Alberta, the impact was less. The main provinces that were significantly impacted were Ontario, Quebec, and the Maritimes. From speaking to colleagues in Sudbury, I know they were down to 25% capability at one point. At my own hospital, Brantford General, we were reduced by 25%. Stratford General was down about 35%, and Pembroke had about 40% reduced capability. For my colleagues out in Sydney, Nova Scotia, again there was a significant impact. So the examples I'm using are rural, community-based hospital practices.

We were very comfortable with the reactor coming back online in a safe process. We understand that it was a safe reactivation of that reactor, and since the isotopes have come back, we are now at full capability, and patients are being treated appropriately.

Thank you.

• (1115)

The Chair: Thank you very much, Dr. O'Brien.

From Anderson Soublière Inc., we will now go to Mr. Jean-Pierre Soublière, president, for five to seven minutes. Go ahead, please, sir.

Mr. Jean-Pierre Soublière (President, Anderson Soublière Inc.): How about five or seven seconds?

The Chair: Okay.

[Translation]

Mr. Jean-Pierre Soublière: My name is Jean-Pierre Soublière. I'm currently active in the community and will continue to be, especially as a volunteer. I have been on the board of directors of Atomic Energy of Canada Limited for about eight years.

[English]

I was, at one point, the chair of the audit committee. Then I was nominated to be the chair, was appointed acting chair, and remained on the board for approximately a year, until the fall of 2006, when I resigned from the board.

And *voilà*, that's who I am and that's my own situation. But I have not been involved with the company at all for over a year.

Merci.

The Chair: Thank you very much. That's very much appreciated, Mr. Soublière.

Now from the University of Waterloo, we have Dr. Nathwani. Please go ahead for five to seven minutes, Doctor.

Dr. Jatin Nathwani (Professor and Ontario Research Chair in Public Policy for Sustainable Energy Management, Faculty of Engineering and Faculty of Environmental Studies, University of Waterloo): Thank you, Mr. Chairman and members of the committee. It's my pleasure to be here.

I will confine my remarks to providing a brief description of my perspective on managing risk in the public interest. Then I will specifically focus on how this relates to nuclear safety matters and the issues at Chalk River. Finally, I will provide you with some specific suggestions on governance of nuclear safety and future improvements.

Management of risk in the public interest should be guided by a balanced assessment of the detriments and the benefits. I have spent approximately 20 years working on this subject with professionals, experts, and my colleagues at the University of Waterloo.

We have tried to promote a rational basis for managing risk in society, particularly those risks that relate to the health and safety of persons and the environment. This has been a difficult area of public policy-making. It has suffered from a lack of careful planning, because images of catastrophic failures command the attention of the media and the public. They distort perceptions, and they drive public controversy. The decisions are thus heavily influenced by sensational reports, and the balanced views tend to get drowned out.

The fundamental challenge to a rational approach to managing risk is that we must simultaneously address the needs of a diverse public with diverse values across all groups in our society.

Against that background, my colleagues and I have reduced the essential issue to two key propositions.

One, the risks that we are all exposed to shall be managed to maximize the total net benefit to society. This requirement is a sufficient and effective guide to support rational efforts directed at reducing risk with the goal of improving health and safety.

Two, the decisions to serve the public interest must be open and apply across the complete range of hazards to life and health under public regulation.

In simple terms, then, all decisions should weigh all benefits and all detriments. When comprehensively assessed, the net benefit to society should be positive in terms of lives saved or life extension achieved. This is just as applicable to nuclear safety as it is to any other aspects of our lives in which safety is important.

Now I will turn to the Chalk River situation. There never was, and there does not exist, a substantive nuclear safety risk at the NRU reactor at Chalk River. A significant breakdown in communication between CNSC and AECL, lack of clarity in the licensing process, and inflexibility on the part of the regulator have all contributed to the needless creation of a crisis.

Parliament's swift actions averted imminent harm to patients and the well-being of Canadians. I remain proud of the way that was handled by Parliament. In basic terms, Parliament clearly made the determination of net benefit to Canada quickly and effectively by ordering the restart of the reactor, dismissing the concern over a very low risk associated with operating the reactor without the two backup pumps.

That was, in my view, a major failure of judgment on the part of the CNSC, the expert agency. It did not provide a clear, comprehensive, and understandable assessment of the essential risk. Instead, the regulator chose to hide behind an indecipherable set of licence conditions.

It has been argued that CNSC's role is strictly to look at safety and not to consider a balancing of risks and benefits. I disagree with such an approach, because it does not provide a thoughtful or meaningful assessment of the situation and, as the actions of Parliament have shown, it does not pass the litmus test of reasonableness.

More to the point, there are several stipulations in the Nuclear Safety and Control Act that provide the mechanisms for bringing reasonable and mature judgment to the fore. I will simply cite these sections of the act to enter them into the record and not read the words, in the interest of time.

The specific sections of the Nuclear Safety and Control Act are as follows: paragraph 3(a), purpose of the act, with emphasis on the word "reasonable"; section 8, objects of the act, with emphasis on the words "to prevent unreasonable risk"; and section 4 of the Radiation Protection Regulations, which provide compelling language to keep the exposures to radiation "as low as is reasonably achievable, social and economic factors being taken into account".

• (1120)

In addition to the act, the commission policy P-242 requires consideration of cost and benefit information in its decision-making.

Rather than be accused of selectively reading into these documents, I would simply draw the conclusion that there is sufficient language in the act that, had CNSC chosen to interpret these in a helpful way, the commission may well have come to a different conclusion and not forced the government and Parliament into the crisis situation. This comprises a significant failure of duty and judgment.

Risk at Chalk River is low. CNSC member Linda Keen indicated at this committee that there is an international standard that calls for frequency of fuel failures in a nuclear reactor to be one in a million. Such a standard does not exist.

Furthermore, she indicated that the chance of such an event occurring at Chalk River reactor is one in a thousand. The implication is that the situation at Chalk River is unsafe by a factor of one thousand. This is fundamentally flawed and incorrect. It is only a statement of frequency of earthquake and does not take into account the safety provisions in place, thereby distorting the representation of the risk.

No meaningful inference can be made from such an assertion. To arbitrarily pick one part of the risk equation and compare it with a standard that does not exist or is not applicable to this situation is not helpful.

Unfortunately, this assertion has created an unnecessary negative international exposure for Canada. I find this troubling and I am sure most Canadians find it unsatisfactory.

Now I would like to turn to my last point: what may we learn from this experience? To improve nuclear governance, I have seven specified suggestions.

My first suggestion is that there be an amendment to the Nuclear Safety and Control Act explicitly requiring that CNSC shall, in its decision-making process, take into full account the costs, benefits, and risks associated with the decision and ensure that the decision is consistent with a determination of net benefit to Canada. Such an amendment is also fully consistent with the cabinet directive on streamlining regulation issued in 2007.

Second, specific regulations to implement this key change would be required. This will help CNSC staff and licensees. Also, it will help drive an assessment process that is richer and truly takes into account a desire to serve the public interest. A comprehensive weighing of the benefits and risks that best reflects the knowledge and information specific to the issue at hand will be a key improvement to governance in the future.

Third, improve clarity around what is not a licensing requirement to fix the shortcomings of the regulatory process.

Fourth, reduce the potential for the arbitrary exercise of regulatory authority through a focus on transparency of the decision-making process. This is required to help promote a better dialogue between the commission staff and the licensees.

Fifth, separate the function of the president, as chief of staff, and the chair of the commission, as a tribunal would help reduce conflict in roles.

Sixth, establish a mediation process to help resolve situations when deadlock occurs.

Seventh and last, improve the effectiveness and predictability of the nuclear safety and licensing process. This is a critical need if Canada is to create the right conditions for development of nuclear technology in helping to meet the challenges of climate change and contribute to reducing greenhouse gases across the economy.

In conclusion, I am afraid Canada's reputation as a country with a strong, credible nuclear regulator has been damaged by this unfortunate breakdown in process. I believe Canadians are looking to Parliament to step back from the politics of the day and help restore confidence, credibility, and trust in our nuclear regulatory system.

I thank you for your patience, and I am happy to answer any questions.

•(1125)

The Chair: Thank you, Dr. Nathwani.

We've had a request. Could you repeat the seventh point?

Dr. Jatin Nathwani: The seventh suggestion?

Mr. David Anderson (Cypress Hills—Grasslands, CPC): Yes, the seventh suggestion.

Dr. Jatin Nathwani: The seventh suggestion was to improve the effectiveness and predictability of the nuclear safety and licensing process. In my view, this is a critical need if Canada is to create the right conditions for the development of nuclear technology in helping to meet the challenges of climate change and contribute to reducing greenhouse gases across the economy.

The Chair: Thank you very much, Doctor.

Now we will go to the final witnesses, from MDS Nordion. We have David McInnes, vice-president, international relations; and Grant Malkoske, vice-president, strategic technologies and global logistics.

I'm not sure which one of you gentlemen will make the presentation.

Yes, Mr. Malkoske, go ahead, please, for five to seven minutes.

Mr. Grant Malkoske (Vice President, Strategic Technologies and Global Logistics, MDS Nordion): Thank you, Mr. Chair.

Good morning, my name is Grant Malkoske. I'm vice-president of strategic technologies at MDS Nordion. Accompanying me is David McInnes, vice-president international relations. We'd like to thank you for the invitation to appear before this committee on this most important matter.

I would like to mention up front that we were unable, regrettably, to have our remarks translated into French because of the short notice we were given to appear.

MDS Nordion is an Ottawa-based life sciences company with over 700 employees at locations in Laval, Quebec, Vancouver, and Belgium. As a leading supplier of medical isotopes, we welcome this opportunity to provide our perspective on the 2007 isotope supply shortage event.

This event had a significant impact on medical isotope production and our ability to supply medical isotopes to the nuclear medicine community and, in turn, that community's ability to supply to

hospitals, physicians, and patients. This event has significantly damaged Canada's global reputation as a supplier to the nuclear medicine community and ours as well.

It is important to understand that there is a sequence of steps in the medical isotope supply chain before patients are actually treated in a hospital. These steps involve a reactor, a processor, a radiopharmaceutical manufacturer, and a hospital or radiopharmacy.

The AECL NRU reactor is our primary source of medical isotopes. MDS Nordion is the processor of these medical isotopes at our facility in Ottawa. It is important to note that MDS Nordion is not the direct supplier to hospitals. We distribute medical isotopes to our customers, radiopharmaceutical companies, all of whom are based outside of Canada. Our customers, in turn, manufacture the radiopharmaceuticals and distribute them to hospitals and radiopharmacies in Canada and worldwide. There are two American companies that are our customers and supply all of Canada's radiopharmaceutical products.

Every day NRU and MDS Nordion-produced medical isotopes enable some 5,000 nuclear medicine diagnostic tests and cancer therapies to be performed in Canada alone. Furthermore, Canadian-produced medical isotopes are responsible for supplying a total of over 50% of the world's medical isotopes, which would apply to some 60,000 procedures per day.

One important aspect in this supply picture is the global production capacity. NRU is the most reliable reactor in the world for medical isotope production. Its supply reliability exceeds 97%. There are only three other sources to call upon for backup supply: South Africa, Belgium, and the Netherlands. If one of these reactors goes off-line, NRU can quickly ramp up to meet 100% of the additional demand. However, the reverse is not true, as we saw last November and December.

If NRU is off-line for more than seven days, no other foreign reactor or combination of foreign reactors can fully fill the supply gap left by NRU. Even with the world's other reactors ramping up to capacity, there was still approximately a 35% total global shortage in medical isotopes. That gap would have persisted if the NRU reactor remained off-line.

On the evening of November 21 we were informed that NRU would not be restarting after its scheduled shutdown. At that point it was not clear when the reactor would resume isotope production. It is important to understand that the information we were provided was in constant flux with regard to resolution options and restart schedules.

Nevertheless, we immediately initiated our contingency protocol for such emergencies. With only two days of inventory remaining, we immediately began notifying affected customers, the radiopharmaceutical manufacturers. We remained in close contact with them over the course of the outage period.

•(1130)

On the morning of November 22, in a meeting with AECL, we were informed of the potential extent of the NRU outage. We advised AECL that this outage would cause a shortage of global supply of approximately 30%.

On the afternoon of November 22, we attended a regularly scheduled meeting arranged by AECL with Natural Resources Canada and us. At that meeting we reiterated the estimated impact of this outage on global supply.

On November 23, we contacted other suppliers in South Africa, Belgium, and the Netherlands in an attempt to source backup supply. Over the course of the outage event, we were in daily contact with these other isotope suppliers.

We also took a series of additional steps to try to facilitate isotope supply: we obtained from the U.S. Food and Drug Administration approval to combine any available backup supply in any proportion; we contacted the Belgian nuclear regulator to validate the shortage crisis and enable special dispensation for increasing processing limits at the Belgian processing facility; and we shipped licensed containers to our suppliers around the world to facilitate immediate shipments should any material become available that could be shipped to Canada.

Despite these persistent attempts to source backup supply, we were only able to get a marginal amount of isotopes from abroad, about 20% of what we needed.

All backup received by MDS Nordion prior to the time that Bill C-38 was passed on December 12 came from South Africa. We were not able to get any backup supply from Europe.

We believe we acted swiftly and worked diligently to address the medical isotope supply shortage caused by this outage. However, the reality is that there is no source of backup supply that can fulfill the worldwide gap that NRU creates as a result of an extended shutdown. Clearly, it is imperative that government, industry, and the nuclear medicine community collectively find a long-term solution for the reliable supply of isotopes from Canada.

Thank you for the opportunity. We're available for your questions.

The Chair: Thank you very much, Mr. Malkoske.

I appreciate all of you making your very concise presentations today.

We'll get directly to questioning now, starting with the official opposition, with Mr. Alghabra, for up to seven minutes.

Mr. Omar Alghabra (Mississauga—Erindale, Lib.): Thank you, Mr. Chair.

When we started this process, I didn't know what an isotope was. Throughout this, we've learned a lot, and I hope Canadians have been watching and learning a lot about this process.

It started off with the fact that we were surprised that the NRU reactor did not meet its licence conditions. Then we were shocked when Ms. Keen was fired for doing her job. Now we've started even learning that isotopes could have been provided by other suppliers

and that really there are other diagnostic processes or instruments that could have been used.

So there are still a lot of questions pending, and I want to thank all the witnesses for coming here today.

I have less than seven minutes now, so I'm going to try to ask as many questions as I can of all of you.

Dr. O'Brien, in your opening remarks you said you learned about this potential crisis on November 27.

•(1135)

Dr. Christopher O'Brien: That's correct.

Mr. Omar Alghabra: Where did you hear that from, especially now that we've heard from the Minister of Health that he didn't know about this until December 5? How did you find out about that?

Dr. Christopher O'Brien: The first notification was from our supplier, GE Healthcare, which supplies our isotopes locally at the Brantford General Hospital. They had advised us that there would be a short-term disruption in the supply of isotopes. They did not know how long it would take, and we were advised that we should start to adjust patient bookings accordingly at that point.

This is not unusual. When there is a problem with production of a radioactive isotope, we do get notification saying it won't be available, it's in customs, etc. So that first notice did not raise a lot of alarm bells for us.

We started to get very concerned on the Friday, and significantly on the following Monday, which would have been around December 1, in that range. That's how we found out.

Mr. Omar Alghabra: On Tuesday we heard from a couple of doctors. One of them was very adamant that it was not a life-threatening shortage, and the other doctor said it's very difficult to measure how threatening or how serious the shortage was. In fact, this morning I was speaking with a doctor who runs a clinic that offers the services, and he was telling me that within the chain of service that the patient receives, this comes at a later level, and there are many alternatives and possibilities that the patient can receive—first, a stress test, and perhaps many other instruments to diagnose a patient. So I would like you to respond to that.

There are a lot of reports that, in terms of these instruments, we could have had alternatives, even different tools, or the fact that isotopes could have been provided from somewhere else. Could you respond to that, please?

Dr. Christopher O'Brien: There are essentially two major life-threatening situations. One is the development of pulmonary embolism—blood clots in the lung. The second acute situation is bleeding in the intestinal tract.

It is correct that a lot of patients can be taken care of with a spiral CT. If the patient cannot have a spiral CT scan because of allergy to x-ray dye, etc., the only alternative for them is a lung scan. In my own situation at Brantford General, we had no isotopes to do emergency procedures on two patients. A lung scan...undiagnosed, has a high mortality rate of about 20% to 25%. So in my own experience in the community hospital setting, where you don't have a lot of resources, this had a significant impact and put patients' lives at risk.

On alternate isotope supplies, there is no other alternative supply for doing lung scans. Technetium is the only isotope we can use. As the commission probably knows by now, technetium comes from molybdenum, which is made in the Chalk River reactor.

Mr. Omar Alhabra: Do you have any specific examples of patients who could have lost their lives without the isotopes?

Dr. Christopher O'Brien: Absolutely. There are three patients I know about. One was in Sarnia, where an individual was having an acute gastrointestinal bleed. The isotope was not available at that time, and the surgeon had to manage the patient without knowing exactly where the bleeding was. The patient was at increased risk because of that.

Mr. Omar Alhabra: You're saying there was no other way.

Dr. Christopher O'Brien: There wasn't in that situation.

Mr. Omar Alhabra: What do you say to the other doctors who say the isotopes would have made their jobs easier and would have been more efficient but...? Why are they saying what they're saying?

Dr. Christopher O'Brien: The two other doctors come from large academic centres where the impact isn't as great as in community hospital settings like Sarnia, Brantford General, Pembroke Regional, and Sydney, Nova Scotia. In those situations, the department of nuclear medicine plays a significant role in the management of acute presentation of specific types of diseases. When you don't have that availability in the community hospital setting, the impact is large.

• (1140)

Mr. Omar Alhabra: Thank you.

My question is to MDS Nordion.

Mr. Malkoske, in your opening remarks you said this shortage will be damaging to Canada's reputation. Can you elaborate on that? Is it Canada's reputation or MDS Nordion's reputation?

Mr. Grant Malkoske: I think it's both. Canada is well known around the world as a major producer and supplier of medical isotopes. Nordion is certainly affiliated with that because of the role we play in the supply chain. It is clearly known to people around the world that the NRU reactor, which is Canada's pre-eminent isotope producer, is the source of the majority of the world's medical isotopes.

Mr. Omar Alhabra: I don't know if this is accurate, but we were told that AECL gets approximately \$30 million in sales revenue from MDS Nordion from the isotopes. Is that a rough figure? Does that make sense to you?

Mr. Grant Malkoske: I really wouldn't like to comment on that, if I could, but certainly AECL supplies most of the isotopes. I'm not sure where the information came from.

Mr. Omar Alhabra: Do you buy isotopes from somewhere else?

Mr. Grant Malkoske: We buy very small amounts. We have backup supply arrangements with some of the other reactor producers, notably in South Africa and Belgium. To maintain activity in that arrangement, we buy very small amounts.

Mr. Omar Alhabra: Did you bring any from abroad during the shutdown?

Mr. Grant Malkoske: We were supplied with a very small amount, as I mentioned earlier, from South Africa. We did not receive anything from Europe.

Mr. Omar Alhabra: Why not?

Mr. Grant Malkoske: Basically they were at capacity. I think I mentioned that when these other reactors ramp up they can only supply about 65% of the world's needs. So you're immediately into a shortfall.

Mr. Omar Alhabra: But why did we hear reports that Europe was willing and capable of supplying us with isotopes? I'm not going to argue how much.

Mr. Grant Malkoske: I really don't know why they would say that. If you recall in my comments, we were in contact with them daily. We informed them of the situation. We implored them to ramp up capacity and provide us with everything they could, yet we got only about 20% of our requirements from them.

The Chair: Thank you, Mr. Alhabra.

We'll go now to the Bloc Québécois, Madame DeBellefeuille, for up to seven minutes.

Go ahead, please.

[Translation]

Mrs. Claude DeBellefeuille (Beauharnois—Salaberry, BQ): Thank you, Mr. Chairman.

Good morning. My question is for you, Mr. Malkoske. I'm going to speak slowly because I believe you don't understand French. You said in your introduction that, on November 20, you were informed that the reactor would probably be shut down for an extended period of time. If I understood correctly, you immediately sensed an emergency and you executed your emergency protocol.

Mr. Malkoske, I find it curious that the Minister of Health and the Minister of Natural Resources stated in their testimony in our committee that they didn't sense the emergency until about December 4 or 5.

How is it that MDS Nordion sensed the emergency on November 20 and foresaw the problems that might arise, and that the two ministers didn't sense an emergency until December 4 and 5? Do you have an explanation for that?

[English]

Mr. Grant Malkoske: Thank you for the question.

Frankly, I can't explain why the ministers would have responded the way they did. That's something you would have to take up with them.

However, if you look at the situation, NRU was already in a maintenance shutdown, and towards the end of that cycle we were informed it was not going to come back up. We did not know yet the extent of the shutdown. So we were already in a situation where inventory was depleted and we had to move.

When something like that happens we immediately move to make sure we can start sourcing isotope. What we didn't know on the night of the 21st was the extent of the outage, how long it would go on, and what the ultimate impact would be. But we already knew that we were running into inventory shortages and wanted to start getting a backup supply. So with the information we had, we executed our emergency protocol to start getting this backup supply.

[Translation]

Mrs. Claude DeBellefeuille: So—

[English]

Mr. David McInnes (Vice President, International Relations, MDS Nordion): Mr. Chairman, may I make one short clarification?

[Translation]

Mrs. Claude DeBellefeuille: Do it quickly, please, sir.

[English]

The Chair: Go ahead, Mr. McInnes.

• (1145)

Mr. David McInnes: The honourable member mentioned we were informed on the 20th, but we were first informed on the 21st. I just want to make sure that is on the record.

The Chair: Thank you.

[Translation]

Mrs. Claude DeBellefeuille: You know, one day won't make a difference.

You say you sensed the emergency around the twenty-first, that you were responsible and that you acted. My question is still unanswered. We received assurances that the ministers sensed the emergency around December 4 or 5, which we think is completely unacceptable and irresponsible.

In that crisis, who was the main contact with whom your company did business? Your information came from a person at AECL or someone from the department. Who was your opposite in that crisis? Who did you speak and negotiate with at AECL and the department? Who are those people?

[English]

Mr. Grant Malkoske: As I mentioned, we had meetings with AECL on the morning of November 22. There were senior representatives—

[Translation]

Mrs. Claude DeBellefeuille: Can you give me their names? Do you have the names of those people? What was the name of your main contact?

[English]

Mr. David McInnes: We can certainly get that information for you.

We treated the news on the evening of the 21st most seriously. In the meetings on the 22nd we had conversations with AECL and Natural Resources Canada, and communicated quite clearly that as a result of the outage we would see a global supply shortage at that time of approximately 30%. It turned out that the actual shortage was about 35%, so we pretty much nailed the estimated number. That

was the opportunity for us to clearly demonstrate to government and AECL that this was a highly serious matter.

[Translation]

Mrs. Claude DeBellefeuille: Did you directly contact the Minister of Health or the Minister of Natural Resources? Did your company contact the ministers' offices directly?

[English]

Mr. Grant Malkoske: We did not contact their offices directly at that time, but we certainly contacted senior representatives within Natural Resources Canada. We were of the view that we had done what we needed to do to communicate the seriousness of this issue to the operators of the facility at Atomic Energy of Canada and representatives at Natural Resources Canada.

I might also add that our actions internationally—and people were aware that we were out trying to source material—certainly demonstrated the seriousness with which we regarded this situation.

[Translation]

Mrs. Claude DeBellefeuille: On November 30, your company issued a news release stating that the crisis would have a negative impact on your financial position, an impact in the order of \$4 million for the first quarter of 2008. On December 13, you corrected that, saying that, ultimately, since the reactor had been started up again, there wouldn't be any financial impact.

I'm on the outside, and I wonder whether you didn't exercise pressure for the reactor to restart as soon as possible in order to protect your financial position.

[English]

Mr. Grant Malkoske: First of all, let me try to address the two press releases. There was one on November 30—you are correct—and another one in December. In the December press release we actually did reveal what we felt the financial impact would be on our company.

The reason for the difference as you go through time is that the picture was in flux. On November 22 we weren't sure how long it would be before NRU would restart. We left that issue between Atomic Energy of Canada and the Canadian Nuclear Safety Commission to decide.

This was a regulatory issue, an issue between the licensor and the licensee. We did not intervene in that at all. So we did not put pressure on AECL and did not put pressure on the CNSC to restart. We did want to understand process, yes, because some of that would help us in our production planning in trying to outsource material from other suppliers.

Does that answer your question?

[Translation]

Mrs. Claude DeBellefeuille: Yes.

[English]

The Chair: Madame DeBellefeuille, your time is up.

We'll go now to the New Democratic Party, to Ms. Bell, for up to seven minutes.

Ms. Catherine Bell (Vancouver Island North, NDP): Thank you, Mr. Chair.

I would like to thank all the witnesses today for appearing before us and helping us get to the bottom of what has happened here. It's very important that we come up with some ideas about how not to have this happen again.

We've heard from many witnesses with conflicting testimony, but a common thread that has run through all of it is that there was a breakdown in communication somewhere. That's where I want to focus today.

I address my first question to Mr. O'Brien. I want to thank you for your presentation and to say that I don't think we doubt that in the end there was a crisis and that this was a situation that maybe didn't need to happen.

I'll just go to one of the comments that you made in an interview on December 6, that you were managing the problem and struggling with it: "This week it's devastating, and next week potentially catastrophic". In the next sentence you were saying, "It's been frustrating because there's really been a breakdown in communications from the federal level to the physician community and we're having difficulty, even on a day-to-day basis, determining what we can do." So I think you also recognize the breakdown in communications.

Having said that, I want to go back to the timeline. We see that on November 22 an e-mail was sent to Natural Resources Canada officials and to an officer in the Minister of Natural Resources' office. That is supplied to us by Gary Lunn, the Minister of Natural Resources, in his testimony: "...to advise that the regularly scheduled maintenance shutdown of the reactor would be extended". So from November 22 we have that.

Then five days later you were informed by your suppliers that there was a problem, but not a catastrophic one at that point. Then eight days later a letter of concern....

Is that a letter that you sent out, just to refresh my memory?

• (1150)

Dr. Christopher O'Brien: That was a press release sent out on December 5 after the board of directors of the Canadian Association of Nuclear Medicine and the Canadian Society of Nuclear Medicine met. We were able to canvass the impact across the country, and we said, whoa, we have major problem here. It took a couple of days for us to get that information.

Ms. Catherine Bell: That's 13 days from November 22. What we just heard from Mr. Malkoske's testimony was that being off-line for seven days could create a crisis. This is like a double crisis, at this point. My question would be, if there were better processes in place, what could have happened better?

Maybe these aren't fair questions just for you. Answers need to come from the minister as well.

Dr. Christopher O'Brien: It's actually a very appropriate question.

The nuclear medicine community used to have a seat at the table with the Canadian Nuclear Safety Commission. We did have a

medical advisory committee there. That was disbanded when the new administration controlling the Canadian Nuclear Safety Commission came in. So we were no longer at the table. We were no longer involved in the decision-making process, which directly impacts our patients' well-being. We were working in an atmosphere of darkness, as I call it. I think this is a prime example of what happens when physicians are not involved in the decision-making process.

I do not know why that advisory committee was disbanded. One of our recommendations is that this should be reinstated, so we have those lines of communications, so that the physicians and the patients we represent, because we are the advocates of patient care, will be able to know at an earlier timeframe and be able to bring to the federal government, through the regulatory agencies, the impact this will have. We believe that was a breakdown, with our not being at the table.

Ms. Catherine Bell: Thank you.

One of the other things you mentioned was that you were managing the shortage. We've heard from other physicians, in Vancouver and different provinces, that they didn't have the shortage you experienced in eastern Canada and in the Maritimes. Is there any mechanism to share those resources, where they maybe have a surplus, in a crisis situation like this?

Dr. Christopher O'Brien: Actually, we ran into problems with that. In order to move radioactive material from one site to another, you have to follow regulatory guidelines. That has to be approved by the Canadian Nuclear Safety Commission. That's called the transportation of dangerous goods.

• (1155)

Ms. Catherine Bell: Trying to facilitate that....

Dr. Christopher O'Brien: Exactly.

Without having those processes in place, you cannot move a dose of isotope across the street. It's against the law and the regulations. We ran into problems with that. We were trying to distribute isotopes locally, but we ran into a barrier because we didn't have the authority to do that.

Other hospitals across Canada have different suppliers of isotopes. There were pockets that had no effect and pockets where it was devastating. That's why you had that patchwork effect.

Ms. Catherine Bell: Thank you.

I'll go now to Mr. Nathwani, on the seven points you made. I'm sorry, I didn't get to write them all down.

In the first one you mentioned cost-benefits and risk. Who's cost-benefits are we looking at? This is a nuclear regulator that would have to determine these things, and I'm wondering if there would be any potential for the cost-benefits to outweigh public safety in this instance?

Dr. Jatin Nathwani: Thank you for the question.

If such an amendment were to be put in law, this would subject the decision of the commission to this determination or tests. Therefore they would have to make a determination, whether it's staff or with assistance from the licensee, on the costs and the benefits. The commission would explicitly weigh these in making a decision and help them make a decision.

Ms. Catherine Bell: I'm struggling with this one, because it's a nuclear safety commission to make sure that Canadians are safe. I have an issue with a safety commissioner being responsible for ensuring cost-benefits to any supplier in the event of any nuclear incident, or perception of a nuclear incident.

That's just something I want to put out there. I don't know if you want to address that.

Dr. Jatin Nathwani: If I may be helpful, one could take the particularly narrow view of what safety comprises, but what is this safety all about? At the end of the day, it is to ensure that the lives of people will not be jeopardized in one form or the other. It is to try to protect the public from untoward events. That is the primary focus of that particular commission.

With respect to the notion of benefit, it is the risk averted, if you wish, in the action taken. If that is not explicitly taken into account, then you have half the picture. You're not able to come to a full understanding of the risk and the benefit, both in terms of lives gained and lives lost, as it were, and make a determination along those lines.

The Chair: Thank you, Doctor, and thank you, Ms. Bell.

We now go to the government, to Mr. Allen, for up to seven minutes.

Go ahead, please.

Mr. Mike Allen (Tobique—Mactaquac, CPC): Thank you, Mr. Chair.

I have just a couple of follow-up questions on some issues that have come up previously, on the timeline.

Mr. Malkoske, I certainly heard you and Mr. McInnes say that there was plenty of discussion, starting on the 22nd, with respect to the outage, but as I think you indicated, you weren't sure then—and along with the testimony that's been given to the committee before, nobody was really sure—how long this was going to last. Certainly AECL and CNSC had the responsibility to work that out among themselves, and that certainly appears to be consistent with the timelines from the ministers as well as toward the latter part of the month, before we really got an idea of how big this would be.

I did want to say that you indicated alternate supplies.... Did I hear correctly that you had actually sent canisters or something out to these other countries to provide these isotopes?

Mr. Grant Malkoske: That is correct. Once we started to see this issue, and that we needed to respond to it, we were trying to facilitate any arrangements that we could—if there was incremental material available—to bring it to Canada. Part of that was sending shipping containers over to bring that material. In fact, we sent them to South Africa and to Europe.

• (1200)

Mr. Mike Allen: Nothing ever came back?

Mr. Grant Malkoske: We did get some material from South Africa, and the material from Europe arrived two days after Bill C-38 was passed, so it was late. I think I mentioned in my statement that it really was only an incremental amount, that it only gave us 20% of our needs, and therefore there was a shortage.

Mr. Mike Allen: A shortage, okay.

Mr. Nathwani, I was reading in your resume that as part of your judicial hearings and regulatory developments, you led the Canadian utilities submission to the House of Commons on Bill C-23, which actually established the Canadian Nuclear Safety Commission.

It was interesting to read your quotes in *The Globe and Mail*:

The decision to rush through legislation to overrule the Canadian Nuclear Safety Commission and restart the...reactor to resume production...could not have been more timely, apt, relevant and correct. The ability of all parties in the House of Commons to take necessary action is...in sharp contrast to the CNSC's failure to evaluate the broader consequences to "life safety" of Canadians.

I have a question on that. The CNSC, when we were debating this in Parliament, not only actively opposed, but they really didn't want to go anywhere with this legislation. Why do you think we were right on this issue? But more importantly, as part of your risk management background, what kinds of things should CNSC have done, rather than just take this oppositional approach?

Dr. Jatin Nathwani: I would like to confirm that, yes, I was involved. When I was working with the utilities at that time, I was the chair of the group, and I was fully aware of all the amendments to the then Atomic Energy Control Regulations and the changes that were made...that ultimately became the Canadian Nuclear Safety Commission. So I'm familiar with the puts and takes around that. There was then even a desire to begin to broaden, if you wish, the concepts around risks and benefits and how we ought to manage this in a way that provides a fuller picture.

In those discussions at that time, the commission, or the AECB, did not want this particular stipulation put into the act, as it were, but they said, how about if we write a policy that would get to the intent of what the desire here was, that you will do a reasonable balancing of the issues at hand. Therefore, the policy two-for-two that has been written was really part of that sort of trade-off, that the commission would write a policy and subject its decisions to the consideration of the costs and benefits in its decision-making process.

I am not close to that any longer. I understand that there is not much credence given to it. It's not pursued with the degree of rigour and completeness that I would wish, hence my suggestion that perhaps this unfortunate situation has taught us a lesson. If there was something firmly embedded within the act that forced that kind of determination, it would bring much clearer thinking to the fore in terms of how you make complex decisions, how you deal with uncertainty, how you look at both sides of the equation on risk and so on, and you would get the kind of decision that Parliament made in a real hurry, which is to me very surprising: that implicitly, without doing the calculations, they managed to get to it, which the commission couldn't, because they said it's one or the other licence condition.

So that's the reason I'm proposing that something to this effect be put into the act, in the hope that it would force a deeper, more mature, more reasonable, and stronger process.

Mr. Mike Allen: Just as a follow-up to that, you did make a statement that the risk involved here was so infinitesimally small—not zero, but low—that I would have thought that prudent people, wise people, would have thought this through and not come to the impasse they did.

So in your view, given your situation in risk management, even considering the current act, this was not a prudent decision on the part of the regulator.

Dr. Jatin Nathwani: That is correct.

Mr. Mike Allen: Thank you.

To Dr. O'Brien, I really thank you for your testimony on rural areas. As an MP who represents a rural riding in New Brunswick, I do understand the challenges. I know that Moncton Hospital in New Brunswick, as well as River Valley Health, ran into some serious challenges with this.

I also appreciate the fact that you clearly articulated in your testimony some of the comments that have come out as to why certain things like CT scans are not replacements for some of the challenges we ran into.

With regard to the action we took as parliamentarians together in this, do you have any doubts that if we had not taken that action, the health impact on Canadians would have been tremendous going on another few weeks?

• (1205)

Dr. Christopher O'Brien: I have no doubts at all. In my own environment at Renfrew General Hospital, even before the act was passed we were having significant problems in maintaining acute life-threatening situations and assessing acute life-threatening situations. We were very concerned that within the next couple of days we would not even be able to offer services.

As mentioned, Pembroke Regional was already closed for periodic days even before the act was passed. Stratford General was closed for a few days even before the act was passed.

We at Renfrew General were able to balance it out a bit better because we had contracts with two suppliers. If one supplier didn't have some isotopes, we'd call the other supplier to try to get something. But a few days before the act was passed, our supplies were drying up. We understand that this was secondary to the reactor in South Africa, which was closed down for regularly scheduled maintenance. That's when we really got into problems. Even if we were getting supplies again, we would have been going back to the continued rationing we were facing.

So without a doubt we were teetering on the brink of disaster.

Mr. Mike Allen: So if we were teetering on the brink of disaster, the way all the timelines are working out, and from the evidence given by folks from MDS Nordion, it would seem that we were going to be in a situation where it was going to be at least the early part of January before we could have gotten anything if we hadn't started this reactor.

What do you contemplate the impact would have been if it had been January 1 before this had started up?

Dr. Christopher O'Brien: What I was seeing locally was that things were getting worse on a daily basis. Continuing with that was an unacceptable option for the health of the patients with whom I was dealing.

So...no option.

The Chair: Mr. Allen, your time is up.

We'll now go to the second round of questioning, starting with the official opposition.

Mr. St. Amand, you have five minutes.

Mr. Lloyd St. Amand (Brant, Lib.): Thank you very much, Mr. Chair.

Mr. Malkoske, I just want to understand the chronology here. You were advised on November 21 that the Chalk River reactor would not be starting up. Is that correct?

Mr. Grant Malkoske: That's correct.

Mr. Lloyd St. Amand: And you were advised of that by whom?

Mr. Grant Malkoske: We were advised of that by Atomic Energy of Canada Limited.

Mr. Lloyd St. Amand: That prompted you to call a meeting the next morning, on November 22.

Mr. Grant Malkoske: In fact it was a regularly scheduled meeting that we had on November 22.

Mr. Lloyd St. Amand: But certainly this topic came up.

Mr. Grant Malkoske: Absolutely.

Mr. Lloyd St. Amand: It was probably at the top of the agenda, I dare say.

Mr. Grant Malkoske: Yes, it was a high agenda item.

Mr. Lloyd St. Amand: Of course it was.

This was your regularly scheduled meeting with AECL.

Mr. Grant Malkoske: That's correct.

Mr. Lloyd St. Amand: And so urgent was the situation from your perspective, and I presume AECL's, that an afternoon meeting was convened. Is that correct?

Mr. Grant Malkoske: That is correct. It was a pre-arranged meeting that had been scheduled, and we went to that meeting. Similar information was conveyed at that meeting.

Mr. Lloyd St. Amand: And officials from Natural Resources Canada were at the afternoon meeting on November 22.

Mr. Grant Malkoske: That's right.

Mr. Lloyd St. Amand: They were certainly advised on November 22 in the afternoon—if they hadn't already been aware—that the reactor would not be starting up again.

Mr. Grant Malkoske: That's true.

Mr. Lloyd St. Amand: And you reacted...you were concerned.

Mr. Grant Malkoske: Very concerned.

Mr. Lloyd St. Amand: To the point that you alerted your customers on November 23 that there would be an interruption in supply.

Mr. Grant Malkoske: That's right.

Mr. Lloyd St. Amand: Then on November 30—and I'm not sure what happened to instill confidence in your stated position—you indicated to your customers, by way of a press release, that, in so many words, things will be fine by mid-December; that's the targeted or anticipated start-up date, so just hold on for a couple of weeks, and by mid-December the isotopes will be flowing to you, and the problem will have been averted.

Is that more or less the chronology?

Mr. Grant Malkoske: More or less, but let me elaborate on it a little bit.

First of all, we started advising customers on November 22. We took action right away. The situation, as I mentioned, was fluid, so there was no clear timeline as to when the NRU reactor would be restarted. So there was a dialogue under way between the regulator and AECL to try to determine what had to be done, what had to be effected, to get the NRU back up.

Even going to November 30, the actual restart date was not clear. At about November 30, we had to move. We had to publicly inform our shareholders and stakeholders of what the situation was, even though after that the movement continued.

• (1210)

Mr. Lloyd St. Amand: I understand that. But is it not passing strange that in spite of the public release on November 30 about this problem, this looming crisis, the Minister of Natural Resources was apparently not aware until December 3 and the Minister of Health was not aware until December 5? Is that not odd?

Mr. Grant Malkoske: I'm not sure of the communication chain that might have taken place within those departments. I'd have to leave that up to you to decide.

Mr. Lloyd St. Amand: But you knew it, and by this time, December 3, tens if not hundreds of people were aware of the situation at Chalk River.

Mr. Grant Malkoske: Certainly our customers were aware of it. Other suppliers were aware of it. We were heavily into trying to get backup supply.

Mr. Lloyd St. Amand: Let me ask you this, if you can comfortably answer. If AECL, on November 21, had started immediately to do what the licensing obligated it to do, would that reactor not have started up much more quickly than it eventually did?

Mr. Grant Malkoske: It's not clear to us, because we don't have that communication between AECL and the regulator on the NRU issues, so frankly it's a communication that takes place before them. We do know that AECL and the regulator were working diligently to try to get the reactor up and running within the parameters that they had to deal with, and we ended up where we ended up.

Mr. Lloyd St. Amand: Is it Mister or Doctor Soublière?

Mr. Jean-Pierre Soublière: Mister.

Mr. Lloyd St. Amand: Mr. Soublière, were you on the Canadian Nuclear Safety Commission board?

Mr. Jean-Pierre Soublière: No. I was on the board of AECL for approximately eight years. I resigned in 2006.

Mr. Lloyd St. Amand: And can I ask the reason for your resignation, Mr. Soublière?

Mr. Jean-Pierre Soublière: I had been acting chair and a new chair was appointed, and I thought it was appropriate for me to leave.

The Chair: Mr. St. Amand, your time is up.

We go now to Monsieur Ouellet from the Bloc.

[*Translation*]

Mr. Christian Ouellet (Brome—Missisquoi, BQ): Thank you, Mr. Chairman.

I would like us to take note of the fact that my colleague asked you to provide the names of the senior officials with whom you had contact on November 21, when you were notified, and on November 22, when you had a meeting. I would like you to forward that to the committee.

What interests us are the isotopes that could save the people who need them in Canada, not your market, which corresponds to 50% of the world market. We're talking about Canada. You're always go back to the fact that the quantity you sell could not be produced elsewhere. We don't question that. We want to know whether it was possible to order the isotopes necessary in Canada elsewhere.

A teleconference was organized on December 10. It was the first and the last, the only teleconference that was held between the Canadian government, that is the Department of Natural Resources, and the European isotope producers. Mr. Bernard Ponsard is the physicist responsible for isotope production at the BR-2 reactor. Following that call, he said, and I quote: "The radioisotopes produced by the BR-2 reactor can supply the Canadian market." He also said: "Canadian authorities said at the time that the crisis would be very short and there wouldn't be any long-term shortage." The day after the call, on December 11, the government tabled an emergency bill requiring the reactor to be restarted.

I simply wanted to remind you that the Belgian reactor was on a routine shutdown at the time of the Canadian crisis. It would have been enough to reprogram it to increase its production starting December 18. The Conservatives' emergency bill gained only two days on that schedule, since Chalk River restarted on December 16.

Were you aware that Belgium and the Netherlands could meet Canada's needs?

• (1215)

[*English*]

Mr. Grant Malkoske: Thank you, Mr. Member.

Let me try to address the isotopes in Canada, which is your concern, and then we can talk about your request for tabling, if you wish.

First of all, it should be recognized that, as I laid out in my production chain, the isotopes that are produced in a reactor do not go directly to patients; they have to go to a radiopharmaceutical manufacturer and then to the patients. Whether that comes from the NRU reactor in Canada, the BR2 reactor in Belgium, the Osiris reactor in France, or the Petten reactor in the Netherlands, it is all the same.

I would like to inform you that we were in constant contact with IRE in Belgium, the operators of the Mol facility at BR2. In fact, we wrote them a letter from our president on November 30 imploring them to provide product to Canada. As I mentioned in my testimony, in spite of our constant discussions with them, in spite of imploring them vigorously, we did not receive anything until December 14, two days after the legislation was passed.

I would also like to address the point you made about the restart of the NRU reactor. The NRU reactor was in a scheduled maintenance shutdown when we were informed about this on November 21. It was at about that time, in fact, that the NRU reactor was to restart after its routine maintenance shutdown. So we were in a supply shortage, which started on about November 21, until Parliament acted to restart the reactor, a period of some three weeks.

I'm not sure what Mr. Ponsard might have told you, what Mr. Ponsard was implying, but in fact Mr. Ponsard was one of the people we conferred with to obtain isotope from Belgium.

The Chair: Thank you very much, Monsieur Ouellet.

We'll go now to the government side, to Mr. Trost, for up to five minutes.

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

I have a quick question for MDS Nordion to get more clarity on the timeline, because it seems to be emerging as a key issue.

Looking through another chronology I have, it says that on November 30 an e-mail from AECL government relations provided details on the shutdown of the NRU and indicated an early December return to normal. Was that very similar to the information you were getting from AECL, that the return to normal was slated for early December? When did they start to give you indication that an early December return to normal was not likely to happen?

Mr. Grant Malkoske: Let me think about that, because I don't know if I have the answer exactly at my fingertips here.

What we were aware of on November 22 was that the situation was fluid. There were a number of scenarios being played out. One of them was early December, one was mid-December, and then as time went on we were informed that it could run into January—which was part of the issue around our press releases, frankly.

Maybe at this point in time I could correct the record about our press releases, if I could just interject.

In fact, on November 30, when we issued the press release, we mentioned that we expected to have a \$4 million to \$5 million impact on our business. In the December 5 letter, once we thought things would get perhaps even longer in duration, we mentioned that it could be \$8 million to \$9 million.

It would seem to me that around the early December time, we were getting indications that this outage could be extended beyond the December 3 period. But frankly, I don't have that at my fingertips.

• (1220)

Mr. Bradley Trost: We're trying to correlate this with other information from AECL, which was being reassuring on November 30 that this was going to start. That's the basis of where my question came from.

I want to turn to Professor Nathwani and go over a few things.

I don't usually take my questions from the CBC, unlike some colleagues, but there was a very good interview that you had there. In it, you said, on *The House*, on January 12, "it is a failure of judgment...most certainly on the part of the Canadian Nuclear Safety Commission". Why do you feel that the CNSC had a failure in judgment?

Dr. Jatin Nathwani: The CNSC could have readily determined the licence condition that was invoked to shut the reactor down and its consequences, and it could have thoroughly weighed the risk of continued operation, that risk being so small that—

Mr. Bradley Trost: "Infinitesimally small" is what you say later on in the interview.

Dr. Jatin Nathwani: Yes.

Mr. Bradley Trost: Let me go to the next thing you said, that "in their policy was a precise stipulation to consider both the cost and the benefits of any decision". I think you were getting into that in response to another question. Would you elaborate a little more on why their policy was a precise stipulation to consider both costs and benefits across the board?

Dr. Jatin Nathwani: The CNSC policy document, for the record, is P-242. It's only a short document of about four or five pages. It was written by the CNSC upon discussions during the amendments to the Atomic Energy Control Regulations. The desire here was to ensure that you make decisions about safety in light of the fact that it is not just in isolation but in a broader consideration of the kinds of costs that it could impose upon either the licensee or society in general.

Mr. Bradley Trost: The terminology used in the interview was that the CNSC were fixed in their position and were unable to see the larger perspective.

Dr. Jatin Nathwani: That was the gist of my comments. The point I make about regulatory policy P-242 is that it appears they have not—

Mr. Bradley Trost: It was specifically put in there to deal with something like this, and yet it was ignored.

Dr. Jatin Nathwani: Something along these lines, but they chose not to do that.

Mr. Bradley Trost: Yes. And I have to say, as someone who has actually read the policies—unlike the journalists, who don't seem to be reading anything when they write the stories on this thing—I find it amazing that the policy was ignored. I'm of the same opinion as you are.

Dr. Jatin Nathwani: So do I, and I shake my head—

The Chair: Thank you very much, Mr. Trost. Your time is up.

We go now to the third round of questioning, starting with Mr. Tonks.

Mr. Alan Tonks (York South—Weston, Lib.): Thank you, Mr. Chairman.

And to all of you, thank you for being here. It's been very helpful, at least to me.

I've been particularly impressed, Mr. Malkoske, with your understanding of and the manner in which you've let the committee know about the role MDS Nordion plays with respect to the whole strategic relationship within the industry and within the international community and the relationship with AECL. Because I see that it's so fundamentally important, I'm going to question you further on that.

To give you the benefit of that knowledge, back in 2005 the Auditor General reported serious shortcomings with respect to the implementation of the capital program, with respect to NRU. It wasn't on a safety basis; it was more a question of when was this work going to get done, who was accountable for making sure that the capital program...?

In view of the importance that you have enumerated, were you aware of the situation that existed with respect to AECL and the NRU, and the whole industry with respect to its dependence on NRU?

• (1225)

Mr. Grant Malkoske: First of all, of course we know about the industry dependence upon NRU. But in terms of the Auditor General's report, we had the pleasure of seeing it at about the same time as everybody else in the public saw it, which was just recently.

We do know, however, that AECL—just because of our regular meeting with them, and we're kind of joined at the hip here in terms of providing these medical isotopes—has been endeavouring to continue to obtain support, to continue to get funding for the Chalk River site and for the ongoing operation of those facilities. So to that extent, yes, we were aware.

Mr. Alan Tonks: I'm not sure how to frame this question.

You have heard from Dr. Nathwani. Without being unnecessarily partisan and taking sides, in retrospect, if this were to happen today, would your role be any different in terms of the action you would take on behalf of the industry, on behalf of the whole international dependence on the isotopes? You've indicated there still is a huge dependence on NRU, that NRU could satisfy an international shortage but other suppliers couldn't. So would your role be the same?

Mr. Grant Malkoske: Our role would be essentially the same. We would implement our contingency planning. We would be reaching out to customers. We'd be reaching out to the other suppliers to get as much as we could and try to make sure that isotopes were flowing into Canada, or at least the results of those isotopes were flowing into Canada.

We also need to recognize that the production of these isotopes takes time. The production of molybdenum-99 in a reactor is a process. It takes some days to get the right amount of material. It has to be processed. It has to be shipped. It has to then be purified and distributed. So there are a number of links in this supply chain that have to continue to be honed, and we work at that all the time. But frankly, the world capacity is what it is, and we don't see any increase in that.

Mr. Alan Tonks: Do I have time for one more question, Mr. Chair?

The Chair: Yes, you do. You have another minute, Mr. Tonks.

Mr. Alan Tonks: Thank you for that, Mr. Malkoske.

We were told that there is a protocol being worked out with the Ministry of Health. It seems to me there's a chain of relationships, and that this protocol would need to be implemented if that were ever to happen again. Your answer indicates that you don't view yourself as solely accountable for hitting the red button on that.

Mr. Grant Malkoske: We are aware that there is a communication protocol being worked on, and we've been consulted on that. So we think it's important to carry on.

Mr. Alan Tonks: Okay.

Dr. Nathwani, you have suggested several things. If something like this were ever to happen again, would it not be incumbent on AECL and CNSC to make, in a transparent way, an application for a licence, under certain circumstances, to continue the operation, as it would have been in this instance, to make a joint application for a licensing amendment so that a public weighting of the costs and benefits could have taken place?

Dr. Jatin Nathwani: It is a suggestion, perhaps, that one could work it through that type of process. It's workable. Among the suggestions I've made, it's another one that could work.

Mr. Alan Tonks: And reporting to two different ministries?

Dr. Jatin Nathwani: Again, it's a part of governance that one could think about in the future, as to how we might improve this.

Mr. Alan Tonks: Another check and balance, okay.

Thank you, Mr. Chairman.

The Chair: Thank you, Mr. Tonks.

We go now to Ms. Gallant for up to five minutes. Go ahead, please.

Mrs. Cheryl Gallant (Renfrew—Nipissing—Pembroke, CPC): Thank you, Mr. Chairman.

My first question is to Dr. O'Brien. I would like to better understand the lines of communication, and perhaps you could remind me of some of the dates and the chronology when the issue became urgent and critical, in your determination—the line of communication both up the chain of command and down through the positions, like radiologists working in the hospital.

At what point, and how, was it signalled to you that there was a problem?

•(1230)

Dr. Christopher O'Brien: The first indication was on November 27, and that's when at my local hospital we received the official notification from GE Healthcare that there would be a temporary disruption in the supply of isotopes to us. We continued on, adjusting accordingly, because we felt this was only going to be a short, couple-of-day issue, if you will. That's very compatible with what we've heard; the timelines were very fluid.

By Monday, December 3, my own department was getting very concerned, and we started to make phone calls to our national organizing body, the Canadian Society of Nuclear Medicine and the Canadian Association of Nuclear Medicine, to find out, gee, is this just a local event that I'm having problems with, or what's happening across Canada?

By December 5, we had enough information across Canada to state that we had a real problem here, because it was just not local. It was patchy, absolutely, so some areas were less affected than others. So we put out our first press release to state that there was a problem here and that it was having a significant negative impact on patient care, and that at that point we were beginning to ration access to health care in the nuclear medicine environment.

We had no direct communication with government, we had no direct communication with Health Canada or Natural Resources, and no direct communication with AECL or the Canadian Nuclear Safety Commission. So our only lines of communication were with us and to get the information out to the public.

Mrs. Cheryl Gallant: When you say you issued a press release, was it on behalf of the nuclear society or the hospitals at which you work?

Dr. Christopher O'Brien: No, this was on behalf of the nuclear medicine association. These were our nuclear medicine specialists across Canada raising the flag of alarm, that there was a significant problem occurring here.

Mrs. Cheryl Gallant: Then, in turn, what did you or your society do in order to let the small outlying hospitals, which may not have heard of this shortage yet, become aware of the situation?

Dr. Christopher O'Brien: Well, our association put out a survey across Canada to determine what the impact was. We had that information sometime around December 5, stating that, yes, there was a variable impact, and the most significant impacts were, as mentioned, in Ontario, Quebec, and the maritime provinces. With that information, we started discussions, trying to determine if we had alternative resources, how would we move forward, how would we coordinate a response to ensure that our local community hospitals would function more effectively?

We were in communication with GE Healthcare, which is one of the suppliers of radiopharmaceuticals, and with Bristol-Myers Squibb, which is the other main supplier. Those departments that had contracts with Covidien, which is the European supplier, had a more sustainable supply from that point.

We got initial telephone conversations from Health Canada as a result, we believe, of our press release on December 5. On the weekend of December 8 and 9, we started to get phone calls from Health Canada requesting the development of an ad hoc committee.

Dr. Gulenchyn was recruited into that initial ad hoc committee. They had their initial teleconferences on the weekend of December 8, 9, and 10, from that point. So it's been through the advisory committee that we now have better lines of communication, both with Natural Resources and with Health Canada.

Mrs. Cheryl Gallant: Thank you very much for that.

Dr. Nathwani, earlier Dr. O'Brien mentioned that the health board at the CNSC had been eliminated when the CNSC came into being under the act. Do you understand why that health board was not included as part of the act or to continue on as part of the board? Was it just assumed that it was included in policy or was there a specific reason?

Dr. Jatin Nathwani: It is a puzzle to me. I recall—this is going back 10 or 12-odd years now—there used to be the...wasn't it called the Advisory Committee on Radiological Protection, and the medical people were in on that particular committee? That was a very useful group of academics across the country and other people with an interest in that subject, who helped provide advice, anyway, to the Atomic Energy Control Board on such matters.

I have lost track of how that disappeared when we went from the AECB to CNSC. I've lost track of why it got dropped. Although I was involved in some of the review of the amendments to the Atomic Energy Control Regulations and so on, I have no recollection of why and who made that decision.

•(1235)

Mrs. Cheryl Gallant: Thank you.

The Chair: Thank you, Ms. Gallant.

Mrs. Cheryl Gallant: On a point of order, it looks like Dr. O'Brien may have an answer to that question.

The Chair: Did you want to add to that, Dr. O'Brien?

Dr. Christopher O'Brien: I could answer that very quickly.

Dr. Al Driedger, one of the godfathers of nuclear medicine, if you will, in Canada, was involved in that advisory committee. It got very testy, according to him, in the sense that the information given from the medical community was felt to be a biased perspective, on the part of the Canadian Nuclear Safety Commission, and the commission felt that what we were doing was not appropriate—and it was disbanded at that point.

I gather a lot of derogatory statements were made at that time, and based on those interactions, there was some concern about the reputation of the physicians at that association.

So it was not an amicable split; it was a forced split.

The Chair: Thank you very much, Dr. O'Brien.

We go now to the official opposition.

Mr. Alghabra, go ahead, for up to five minutes.

Mr. Omar Alghabra: Thank you, Mr. Chair.

Mr. Soublière, thank you for coming here. I know you've been sitting quietly here, but there's a real reason many of us wanted to hear from you. You acted as chair for a couple of years at AECL. You have a lot of experience that I think could benefit this committee.

I just want to point out, first, that there was a report in *The Globe and Mail* that you had been recommended twice to be the full-time, permanent chair of AECL. The first time, we understand, was because an election was called; and the second time, you were not appointed and Mr. Burns was appointed.

Do you have anything to elaborate on that? Can you tell us a little bit about that?

Mr. Jean-Pierre Soublière: First of all, it was not a full-time position. I was only acting chair for one year. I know for sure that I was recommended the first time through an independent committee, and I'm not sure why I was only made acting chair.

In terms of the second process, the same process was repeated approximately nine months after the election. I was not appointed the second time. I did not tell the press I had been recommended twice; I have no proof of having been recommended the second time.

Mr. Omar Alhabra: By the way, when I said full-time, I meant permanent.

During that time, as chair or acting chair, would you have been involved in any type of regulation or licensing issues with the NRU reactor?

Mr. Jean-Pierre Soublière: Not really, no. We were made aware, and kept abreast, of what was going on—certainly with the partnership that was being developed with MDS, which was quite elaborate and very positive, in fact. We did meet with the chair, who came to our board meeting at one point.

But no, this was a very official, very legalistic process. No, the board was not involved in this, and neither was I.

Mr. Omar Alhabra: So if there was an extended shutdown of the NRU reactor, the board would not have been notified?

Mr. Jean-Pierre Soublière: No, I meant in terms of actual face-to-face discussions.

Absolutely, we would have been notified, of course.

Mr. Omar Alhabra: So the board would have been briefed on regulatory issues, maybe not about the details of the process but about the regulatory issues or shutdown issues of the NRU reactor?

Mr. Jean-Pierre Soublière: I was not there, of course, when this happened. So I can only speculate today. I assume we would very much be kept in touch with these issues. We might not have been told of a regular shutdown, because it was something that was happening, but as soon as there were any issues, they would certainly be brought up to the chair.

Mr. Omar Alhabra: I know I'm asking you to speculate, but as a former AECL chairperson, I think your experience is useful for us, because we've been unable, to date, to get the actual chairman of the time.

Mr. Malkoske told us about the meeting he held with AECL on the shortage of isotopes. Would the chairman have been involved in that?

By the way, it's interesting to note that it is reported that Mr. Burns also briefed the minister on November 22. I don't know if that's a coincidence or not, but it was reported that he had briefed the minister on November 22.

As a chairperson, would you have been notified of this type of urgent meeting and requirement?

Mr. Jean-Pierre Soublière: It's pure speculation.

Mr. Omar Alhabra: I understand that.

Mr. Jean-Pierre Soublière: I would assume so, and I would have hoped so.

Mr. Omar Alhabra: Let's be hypothetical again: if you were the chair and you were notified, would you have called the minister, the minister's office, and notified him?

Mr. Jean-Pierre Soublière: I might have started the plant myself.

Some hon. members: Oh, oh!

Mr. Jean-Pierre Soublière: I think I would have done what I felt was important to do, as soon as possible. That's what I believe I would have done.

● (1240)

Mr. Omar Alhabra: I know my colleagues think it's funny, but hopefully the minister will answer these questions about why he wasn't telling people that he was notified about this incident.

I want to get back to Mr. Malkoske about the timeline. It's strange to us here, and we are learning for the first time, I think, that you knew this could be extremely catastrophic for the industry on November 22, and you held meetings.

Whom did you follow up with in Natural Resources?

Mr. Grant Malkoske: First of all, let's start right from the beginning of the discussion on November 22. To go to the point—and excuse me for not understanding the protocol—I'd like it read into the record that the three major people who were represented at the meeting on the afternoon of November 22 were Brian McGee from Atomic Energy of Canada Limited, Sylvana Guindon from Natural Resources Canada, and me representing MDS Nordion. There were other people there—frankly, I don't remember their names—but I think these are the keys you need for this discussion.

Throughout this whole process—and at this point in time, I went on business to Australia—there were a number of discussions going on in the week of November 28 that were trying to understand where the hot points would be to get this reactor started up. Certainly we were in contact with Atomic Energy of Canada. They were the ones we were in contact with daily to understand this situation. That was our primary government contact.

Our view is that they report through to the Minister of Natural Resources Canada. What their communication protocol is we do not understand or know completely, but they are our conduit through this. We would have assumed that the minister or minister's staff, or somebody at Natural Resources, would be aware of the ongoing situation, the flux that was going on and its restart dates.

Going back to the question that was answered earlier about what we knew and when we knew it, we knew at the time of our November 30 press release that it could be mid-December if this one-pump option were to be implemented and the NRU restarted. By December 5, the landscape had changed a bit. It now looked as though it would be a two-pump option that was going to be required to restart the reactor, and that it therefore wouldn't happen until January. That's what is recorded in our press release.

That's the best information we had in terms of what would be done and when.

The Chair: Thank you, Mr. Malkoske, and thank you, Mr. Alghabra.

Now we go to the Parliamentary Secretary to the Minister of Natural Resources, Mr. Anderson.

Mr. David Anderson: Thank you, Mr. Chair.

I want to clear some things up for Mr. Alghabra, since he seems to be confused.

The timeline that has been laid out today is exactly the same one that was laid out by the minister. It's in the testimony he gave here, in which he talks about November 18 as when the reactor was shut down and November 22 as when AECL sent a brief e-mail to his departmental official. Also on that day, during a regular working-level meeting, AECL, MDS Nordion, and an official from Natural Resources Canada met. I assume that's the meeting you've been talking about this morning.

He talks about getting an e-mail on Thursday, November 29, and on November 30 getting an e-mail from AECL on the implications of what is described as a temporary shutdown of medical isotope supply. In that e-mail, AECL stated that they intended to restart the NRU by early December.

All that is consistent with what I think has been heard today. I heard you say, Mr. Malkoske, that even by November 30 there was still no clear timeline on when the NRU would restart.

The thing that's encouraging to me is that everyone has been on the same page, and that obviously the information was given to people here early, and they can be confident of that.

I want to ask a couple of questions. One of them is this: is it correct that there was an extended shutdown in 2006—a ten-day shutdown that was extended longer than a normal shutdown would be?

I guess, if you have to look around, that obviously it was handled well; it wasn't an emergency situation. Everyone reacted to it, handled it, and moved on from there. Is that correct?

Mr. Grant Malkoske: That is correct. It was well planned well in advance, and it went off very smoothly, frankly.

Mr. David Anderson: Okay. And I think it's reasonable to see that well into this one there would be that same expectation, that there was going to be nothing unusual taking place here, and it was only around the end of November that people realized that this was not a normal situation.

Mr. Grant Malkoske: Yes, frankly, it wasn't until November 21, when we were informed that this was not going to restart, that

something was unusual and we weren't sure when it could go back up again.

• (1245)

Mr. David Anderson: As you pointed out, even at the end of November you still thought that was possible in early December.

Mr. Nathwani, you made some recommendations here, and one of them was to have a separation of function within the CNSC, if I have it down correctly, between the president as chief of staff and the chair of the commission as a tribunal. I would like you to talk first about what you see as the conflict in this situation. What was the conflict that took place? And is this adequate to fix this situation?

Dr. Jatin Nathwani: It is but one suggestion, and I put it in front of the committee as perhaps one way to do it. But let me be helpful, if I can.

What we have is a situation wherein you have vested within the authority of the president of the CNSC decision-making authority. Of course, she's the executive of the staff as well. When you get into a kind of situation where there is a dispute between the perspectives of CNSC staff and the licensee, let's say, on substantive matters, on technical matters, you may need to find a clear or objective or different perspective that might help you get out of this sort of impasse. If the authorities were separated, that is, if the chair of the CNSC—of the adjudicative tribunal, if you wish—were separate from the staff and the staff influence through the office of the president, perhaps that might be a way to get out of such an impasse.

It's just a suggestion.

Mr. David Anderson: Mr. Malkoske, would this be an improvement, given that you have relations with AECL and CNSC? Would this improve the situation?

Mr. Grant Malkoske: I can't comment specifically on AECL and CNSC, although I would reiterate Mr. Nathwani's point that I think, generally, industry has expressed a concern about the separation of mandates.

Mr. David Anderson: Okay. Maybe that actually ties into this as well.

AECL had made a complaint that there was really no transparent decision-making process that they were able to access in this whole situation. Do you have a comment on that, Mr. Nathwani? One of your recommendations seemed to be that we need to bring more transparency to this.

Dr. Jatin Nathwani: I am somewhat familiar with the licensing process and how some of these technical issues and debates unfold between the experts within the licensing groups and within CNSC. Again, not to impugn anyone's motives, but people do come to different conclusions on these matters. If there were some way to resolve these matters, a technical determination of the differences and what is the appropriate perspective, either through a mediation process or through some other process, it would be helpful.

The process right now, as it stands, is so unclear, so befuddled with the number of licensing conditions, that even the licensee often doesn't know what is a requirement and what is not. For that matter, the CNSC staff tend to forget what it was that they had asked. So there is a great deal of confusion and lack of communication and so on, which led to this particular scenario. It's ever present for all the other aspects of nuclear regulation in Canada.

The point I'm trying to make is that if that could all be brought out with a certain degree of clarity for both parties, it would be particularly helpful, and it would perhaps prevent this sort of impasse from coming to pass.

The Chair: Thank you, Mr. Anderson.

We have time for about two and a half minutes for each party in the final round, starting with Mr. St. Amand.

Mr. Lloyd St. Amand: Thank you very much, Mr. Chair.

Dr., Nathwani, Ms. Keen's leadership or management style has been described as collaborative. The very clear impression I've formed is that she is not overbearing, and in fact, decisions made by the commission were in fact decisions made by the commission.

How many members are there in the Canadian Nuclear Safety Commission, Doctor? Are you aware of the number?

• (1250)

Dr. Jatin Nathwani: I believe it's five, but I could be off by a factor of one or two. There are five members of the commission, I believe.

Mr. Lloyd St. Amand: To the best of your knowledge, those are professional, well-qualified people to sit on such an important commission?

Dr. Jatin Nathwani: Yes.

Mr. Lloyd St. Amand: You're saying pretty conclusively today that with respect to assessing the risk in November and December at that Chalk River facility, you are right and they are wrong. Correct?

Dr. Jatin Nathwani: Let me help you clarify by noting that the fact that the risk is low is known to CNSC. It is actually part of the safety analysis report and the safety envelope of the plant that was licensed by the CNSC. The CNSC is absolutely aware of the point I'm making, and it is a very low risk. That is the basis for the continued operation of the nuclear reactor. To help you, what I've tried to characterize in my remarks is, let's make a clear understanding between what is a substantive nuclear safety question versus what is a licensing condition type of interpretation. I think it is in the latter part that things went awry.

Mr. Lloyd St. Amand: So simply put, Dr. Nathwani, if you had been president of the commission, as a for instance, there would have been no crisis?

Dr. Jatin Nathwani: You're certainly giving me a level of power that I'm not used to as a humble professor.

But I am clear that if I had had access...and by the way, I don't have access to all the internal information; I follow what's in the paper. If I had had the kind of information and the benefit of the information, and the discussions of all these timelines and the things the way they were emerging, I would have said, gentlemen, there is a better way for an answer here, and it goes something to this effect. If

you say to me that first I need to have an earthquake occur, and then I need to have a whole series of multiple failures happen before the effectiveness of whether this pump is connected or not connected, and so on...and you're down into the milliseconds of radiation on a hypothetical basis to some individual that could occur under this scenario, and imminent harm to lives of Canadians from the medical need perspective here.... To me, the determination is so simple that I'm puzzled as to why they couldn't get there.

The Chair: Thank you, Mr. St. Amand. Your time is up.

Dr. Nathwani, had you finished answering?

Dr. Jatin Nathwani: If I had been able to make a determination, the crisis would not have occurred, if that is where you were headed.

The Chair: Thank you very much.

We now go to the Bloc Québécois, to Madame DeBellefeuille, for two and half minutes.

[*Translation*]

Mrs. Claude DeBellefeuille: Thank you, Mr. Chairman.

Messrs. Malkoske, McInnes and O'Brien, I can't say, as a member of Parliament and a citizen, that your testimony has reassured me on the management of the crisis, from an organizational standpoint or from that of the communication between the authorities concerned and the medical community. What we've heard today is quite appalling. Very few forecasts and communication plans are being prepared, despite the fact that we're this dependent on reactors.

My question is for MDS Nordion's managers.

A lot of questions are being asked in the media about the MAPLE reactor. It's said that there will be major problems in the future. Some even say it will never see the light of day. The fact is that the Chalk River reactor is 52 years old. Even if upgrades are done, it's still old and we'll have to replace it. However, in view of what's available, its replacement is far from certain.

Our dependence on that reactor is now more than confirmed. What will happen if the reactor breaks down for an extended period of time and the MAPLE reactor isn't ready? Would you be able to offset the shortage as efficiently as in the last crisis? This is quite disturbing for Quebeckers and Canadians.

• (1255)

[*English*]

Mr. Grant Malkoske: Thank you very much, and frankly we share your concerns.

What I've tried to portray today is that the global isotope supply situation has a capacity limitation. The reactors that we talk about internationally are all in the fifty-year vintage, and there are no other new reactors coming online, other than in the case of the investment that Canada has made to date in the MAPLE reactors. So what this has done is highlight the fragility, if you will, of the supply chain of isotopes to Canadians and to others.

We think, frankly, that it is absolutely paramount to have a national isotope supply strategy for Canada. We think there needs to be a clear consideration of what can be done to ensure the operability and licensability of the NRU supply stream beyond 2011, which is its current licensed time. Furthermore—

[Translation]

Mrs. Claude DeBellefeuille: Pardon me, Mr. Chairman—

[English]

The Chair: *Merci, Madame DeBellefeuille.* Your time—

[Translation]

Mrs. Claude DeBellefeuille: Thank you for letting me finish.

[English]

The Chair: Continue very briefly.

[Translation]

Mrs. Claude DeBellefeuille: Mr. Malkoske, you say “there needs to be.” However, I read committee minutes dating back to 2005 in which it was said that it would be necessary to establish protocols and consider national strategies. But our reactor has been extended and extended for 17 years now. That's a fact. How can you say today that “there needs to be” something, when those protocols, that national strategy, should have been put in place a long time ago? This situation is very troubling.

[English]

The Chair: Madame DeBellefeuille, your time is more than up.

Ms. Bell, go ahead, please.

Ms. Catherine Bell: Thank you, Mr. Chair.

We're hearing that this crisis didn't necessarily need to occur. There was a breakdown in communications, and it was not necessarily just because the reactor shut down. There was an extended shutdown in the past, and it was handled.

I'm curious to know what the nature of that extended shutdown was. Why did it go down, and for how long, and what kind of processes were in place at that time to mitigate a crisis, and why weren't those processes used in this instance?

Mr. Grant Malkoske: Let me try to address that.

The shutdown that we talked about last year was in fact a planned shutdown. We knew it would be extended longer than normal. It was for ten days rather than the normal five. There is sufficient inventory to go beyond five days. As I mentioned earlier, we have inventory that can take us to about seven days, and so we have a three-day gap now that we're trying to address through this situation. During that time, because we knew well in advance, we could go out and talk to other producers and get them to get their reactors up to capacity. Nonetheless—

Ms. Catherine Bell: Before you go on, can I just ask, then, whether there has ever been an unscheduled shutdown that's been extended, in any kind of instance similar to this?

Mr. Grant Malkoske: There has been, but there have always been other reactors available. NRU had the situation many years ago where the NRX reactor was operating at that point in time and had capacity.

I'll go back to the 10-day window. I really want to finish this point, if I may, please.

Even at that point in time, these other reactors around the world could not fill the gap. They went up to capacity. There was a shortage. It wasn't as severe, because it didn't go on as long, but the

radiopharmaceutical manufacturers were already reducing their supply to customers. So there is a global issue here. There's a global reactor capacity issue.

We're dismayed, as much as you are, that things haven't progressed. We really would emphasize that this issue around NRU operability, and getting a strategy for the MAPLE reactors, is so essential and so critical.

The Chair: Thank you, Ms. Bell.

Ms. Gallant, go ahead, please. You have two and half minutes.

• (1300)

Mrs. Cheryl Gallant: Dr. O'Brien, Dr. Nathwani mentioned that the existence of that health board would have been helpful in the CNSC's ability to balance the risk. Now, at what point was that health council disbanded? Was it after the CNSC was formed? Please elaborate on the acrimony to which you previously referred.

Dr. Christopher O'Brien: I don't have the exact date. It happened after the new administration, Linda Keen, took over from CNSC.

There were two changes that occurred in the arrangements. One was the disbandment of the medical advisory board—the health board, as you would call it. The second change was in the licensing within the nuclear medicine labs. Previously there was a requirement to have a Royal College-certified nuclear medicine specialist identified as the monitoring physician. The Canadian Nuclear Safety Commission abolished that requirement, and it was left up to the licensee to appoint someone, who might or might not have the expertise in nuclear medicine to be a monitoring physician.

So you had changes at the national level: medical interaction was no longer required, and the Canadian Nuclear Safety Commission isolated itself from medical input. There was also a change at the local level: it was possible to have monitoring physicians at the local nuclear medicine lab who were not Royal College-trained or experienced in nuclear medicine. Most hospitals ignored that stipulation and continued to have Royal College-certified physicians involved. But it creates an atmosphere. We are the experts in the field. We spend years being trained as radiation safety officers and maintaining the health of individual patients, workers, and the public.

Some discussion on this occurred during the new administration at the Canadian Nuclear Safety Commission. I do not have that information in detail. But according to Dr. Albert Driedger, who was involved, it was very testy and there was some concern that the reputations of the nuclear medicine physicians at that committee were actually damaged.

Mrs. Cheryl Gallant: Do you know why the new CNSC administration did not want to have the advantage of the knowledge and input of this health council?

Dr. Christopher O'Brien: The only information Dr. Driedger gave me was that it was felt that the medical advisory commission was biased, and that its opinion was not apt to be in line with the philosophy of the Canadian Nuclear Safety Commission.

Thank you, everyone, for your questions today. I appreciated in particular the information provided today by witnesses.

The Chair: Thank you, Ms. Gallant.

The meeting is adjourned.

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