

Minister of Industry,  
Science and Technology and  
Minister for International Trade



Ministre de l'Industrie, des  
Sciences et de la Technologie et  
ministre du Commerce extérieur

# Statement

# Déclaration

92/04

## NOTES FOR AN ADDRESS BY

**THE HONOURABLE MICHAEL WILSON,**

**MINISTER OF INDUSTRY, SCIENCE AND TECHNOLOGY**

**AND MINISTER FOR INTERNATIONAL TRADE,**

**TO THE CANADIAN NUCLEAR ASSOCIATION**

**OTTAWA, Ontario**  
**February 11, 1992**

Thank you, John, for your kind introduction, and thank you for this opportunity to join your winter meeting.

I am pleased that you have already had the opportunity to meet with some of the most senior officials, from Industry, Science and Technology Canada and International Trade Canada, and from Energy, Mines and Resources Canada.

I look forward to hearing more about these issues following your meeting today. I would like to reiterate the message that Tony Eyton gave you this morning. The Prosperity Initiative provides you with a chance to give input and advice. We have begun sectoral consultations, and, as you know, Bob Ferchat, Chairman of the Board of Atomic Energy of Canada Limited (AECL) has agreed to chair the study on the services industry. I urge you to get involved in these sectoral consultations, which affect your industry, or send submissions to the Steering Group.

The nuclear industry has a large stake in Canada's ability to improve learning, science and technology, financing and investment, domestic markets and international trade. These are the five areas covered in the discussion paper the government released to help focus dialogue during consultations. These are the key areas where we must improve our performance. Your experience in addressing these challenges will be extremely valuable to a process to help steer Canada's economy into the 21st century. I am confident in Canada's ability to build a dynamic economy for the future. We have the ability to face the challenge of global competitiveness.

I was forcefully reminded of Canada's achievement and our potential in the high technology field just two weeks ago, when Dr. Roberta Bondar made her flight in the International Microgravity Laboratory. This was a proud accomplishment for Canadians everywhere. It was an especially proud achievement for Canadian science and for the Canadian Space Program in particular. From this success, I think we can draw three lessons that apply to the nuclear industry in this country as they apply to the space industry:

1. Canada has world-class expertise in one of the leading-edge areas of science and technology.
2. Canada has used that expertise to enhance its industrial base and seize new trade and investment opportunities.
3. These accomplishments are the result of a vibrant partnership among the federal government, the private sector and the scientific community.

In space, Canada has carved niches of expertise in such areas as space science, robotics, remote sensing, telecommunications and the astronaut program. In the nuclear industry, Canada has secured a solid reputation for the safety and dependability of the Canadian Deuterium Uranium (CANDU) reactor. When the world thinks of Canadian technology, it thinks of CANDU. But Canada's reputation does not end there. Building on the strengths and achievements of our nuclear energy program, Canadians have applied nuclear technology to a wide range of purposes.

Take the case of Exotemp Ltd. of Pembroke, Ontario. Established in 1989, this company has quickly become a world leader in the field of microclimate systems. With sales totaling \$4 million in 1991 and markets in Australia, India, Saudi Arabia, Spain, the United Kingdom, Canada and the United States, Exotemp's products dramatically extend human performance in conditions that would normally be unbearably hot.

The cooling system consists of close-fitting garments with thin plastic tubes sewn into a light, stretchy fabric and connected to a control switch and portable battery-operated coolant packs. These garments have helped people with medical conditions, race-car drivers, asbestos contractors, and bomb disposal technicians, and they contributed to the great success of Canadian oil-well firefighters in Kuwait last year.

Or take the example of two of the companies that have been created from AECL to pursue non-energy applications of nuclear technology. Theratronics was a pioneer in radiation therapy when it developed the world's first Cobalt 60 cancer treatment machine in 1951. Now Theratronics has built a solid business around the world with its computer-based treatment planning machines. Theratronics sales last year were some \$48 million. About 85 per cent of those sales came from exports.

Nordion International Inc. is another globally competitive company that has grown from AECL. As a leading international producer, marketer and supplier of radio-isotope products and related equipment, Nordion sales exceed \$100 million annually; 90 per cent of those sales are exports. Nordion offers an excellent example of how the technology that was developed to serve Canada's energy needs has been used to help respond to non-energy purposes.

Nordion is the world's largest supplier of the radio-isotope Cobalt 60, which has been used for years as an energy source in cancer therapy. The market will undoubtedly expand as the technology evolves to use Cobalt 60 to combat food-borne disease and to disinfect hospital wastes and sewage sludge. Nordion has recently contracted with AECL for new medical diagnostic radio-isotopes.

In order to meet a growing expected demand, Nordion is providing funding for AECL to construct the first commercial reactor devoted exclusively to the production of medical radio-isotopes.

Nordion, Theratronics and Exotemp Ltd. are three Canadian success stories that grew out of the technology created by the nuclear energy industry. But other companies have built products and services by responding to the needs of the market.

Take CAE Electronics -- a company with a worldwide reputation as a builder of flight simulators. It is now tapping a lucrative market for simulator training of nuclear and thermal power plant operators.

Whether they develop and market nuclear technology, or provide goods and services for the nuclear industry itself, these companies are

successful largely because of their painstaking commitment to quality.

In the nuclear industry, quality is absolutely essential to safety and, therefore, must be built into every aspect of product and process. The reliability of CANDU reactors is founded on the philosophy of defence in depth, the first priority of which is quality. Canadian suppliers of nuclear components are well acquainted with meeting rigorous quality control and traceability requirements. The nuclear industry has provided Canadian industry with a catalyst for improving its standards and quality. In a fiercely competitive global marketplace, where demanding clients expect high quality at competitive prices, Canadian exporters can thank you for setting the standard.

Canadian industry can also thank the nuclear industry for helping to open the door for high value-added Canadian goods and services in world markets. Last November, I led a trade mission to Korea that included companies from the nuclear, automotive and communications sectors. Canadian business has established a place in the Korean market -- one of the world's fastest growing economies. One of the keys to opening the door to Canadian business in Korea has been the CANDU reactor. It has been our "flying wedge" into the market of a trading partner whose importance will grow in the coming years.

The first CANDU reactor sold to Korea, Wolsung I, went into service in 1983 and has been a consistent leader among Korea's reactors. The agreement for Wolsung II was signed just over a year ago and will go into service in mid-1997. This contract is expected to inject \$400 million into the Canadian economy.

Korea intends to build nine more nuclear plants this decade, and eighteen by 2006. Korea Electric Power Company (KEPCO) has now formally invited AECL to bid on the Wolsung III and IV units. The units are scheduled to go into service in 1998 and 1999, respectively. I would like to celebrate the success AECL has achieved with Wolsung II and wish them every success in their bids for Wolsung III and IV.

In total, the Canadian nuclear industry has an excellent opportunity to sell additional CANDUs to Korea in the coming years. But we cannot rest on our laurels. The nuclear industry, which has taught Canadian business superb lessons about the value of quality, must market smarter.

It must determine what the client is looking for and must provide that service or those goods in a way that not only meets, but also exceeds, expectations. My recent visit convinces me that the Koreans are interested in buying more than cost-effective, safe and reliable nuclear power.

They are also looking for technology transfers, knowledge and expertise. You must convince Koreans that doing business with those in the Canadian nuclear industry means joint ventures, partnerships and collaborations that will help their country and ours respond to

the technological demands of the global economy. Canadian firms wanting to participate in Korea's nuclear power future must develop long-term, mutually beneficial relationships with Korean companies.

We have made a start. There are 150 Korean scientists and technicians now in Canada, working with our engineers at a number of sites. Such technical co-operation efforts will serve us well in the growing Korean nuclear power market and will open opportunities for Canada in developing countries, in concert with the Koreans. A case in point is the Korean Multi-Purpose Research Reactor -- for which we are providing engineering and hardware. This may prove to be an invaluable demonstration project for developing markets in the Asia/Pacific region.

Canadian nuclear engineering services and expertise are a highly valued service in the global marketplace. We are marketing those services in Korea, but elsewhere in the world there are other important opportunities. One of the most promising areas is in the new democracies of Eastern Europe, where market-driven reforms and decentralization open up tremendous opportunities.

A Canadian-Romanian collaboration is working to get the Cernavoda nuclear project back on track after the economic and industrial crisis that followed the overthrow of the Ceausescu regime. As you know, the Government of Canada has guaranteed the financing to complete Unit One at Cernavoda according to internationally recognized standards of design. There can be no compromise on safety. I am pleased with Canada's involvement in Cernavoda's improved project management and pleased that we will have a role in the first 18 months of plant operation.

A superior designed and operating plant in the region will serve as a model of Canadian technology and boost future business opportunities. I think you understand the importance of Cernavoda to any regional aspirations. In Hungary, there are prospects for the Canadian nuclear industry, and we are working to position Canadian companies to take advantage of this nuclear power market. There are real business opportunities for technology and services from Canadian manufacturers, engineering companies and utilities.

As well, a Task Force on Central and Eastern Europe has been created to provide technical assistance in priority areas -- energy being one of them.

The Task Force has already established one project in concert with the Atomic Energy Control Board (AECB). This involves support for training of Romanian nuclear safety officials and is just one very important way that the Task Force has helped the nuclear industry in the region. Canada isn't just exporting CANDU technology; it is also exporting Canada's safety culture on nuclear projects. In fact, the Government of Canada has launched a trade and industrial development program called Renaissance Eastern Europe to increase the involvement of Canadian companies in the markets of the former Soviet bloc. For

the Canadian company looking to develop a long-term presence in the region, the Renaissance program may support your business development strategy.

However, cost and intense competition remain key issues. We must keep our prices competitive and market aggressively. In this region, Canadians need to be especially creative in structuring business deals. Canada cannot finance everything. Business needs to focus its efforts on priority markets. We need to target the components, systems and technology markets as much as we concentrate on winning turn-key projects.

The potential for new CANDU sales depends on a number of factors. One of the most important is the strict compliance of possible customers to the terms of the Nuclear Non-Proliferation Treaty (NPT). Canada has consistently called on those states not yet party to the NPT to accede to it as soon as possible. Recent accessions bring NPT membership to nearly 150, ever closer to the goal of universal adherence to this treaty. Canada will continue to press for all countries to sign and to open new potential customers for Canadian nuclear technology.

Finding new customers around the world for Canadian nuclear technology is one thing. But what about markets here in Canada?

As you are aware, Energy, Mines and Resources Canada has worked with the provinces to prepare a series of reviews of nuclear power. The conclusion my colleague Jake Epp, Minister of Energy, Mines and Resources, announced was that the nuclear option will be maintained as part of Canada's energy mix.

The situation in several provinces has changed since then. The Government of Canada still stands by its commitment. Whatever our position concerning the viability of the option, it is up to you to make the offer attractive to your potential domestic customers. In that respect, I want to commend your vigorous media-based public information campaign, which aims at correcting some widespread misunderstandings about nuclear power and your industry.

This campaign is not only valuable to your industry, but also important for elected officials. Governments must respond to their publics. The better informed the public, the better chance governments -- federal and provincial -- have to make wise choices with respect to nuclear power.

At a time when the industry requires more scientists and engineers, many of the people who started in the nuclear field in the 1950s and 1960s will be reaching retirement. This is part of a larger trend throughout the science and engineering professions. To respond, the government launched the Canada Scholarships Program, which now supports over 7 000 scholars, many of whom will enter the job market next year. Corporations that rely upon scientific and technological excellence will benefit from the skills of these scholars. But 10 companies that have sponsored Canada Scholarships Corporate Awards to outstanding Canadian scholars stand to benefit most. Glaxo Canada,

Du Pont Canada and Shell Canada, for example, sponsor scholarships in environmental engineering; Merck Frosst, scholarships in chemistry and biochemistry; and SCIEX, scholarships in instrumentation design. Others help scholars to promote high school students' interest in science and engineering. One goal of the Program is to convince young people that science and engineering provide exciting and lucrative careers.

The nuclear industry has one of the highest stakes in promoting a new generation of scientists and engineers. I encourage you to consider the Canada Scholarships Program as a way to expand your activities while helping to train the highly qualified people you will need in the coming years.

Together, we are working to change Canadians' attitudes about the role that science and technology must play in Canada's prosperity. Canadians must embrace science and technology as one of the keys to our economic future. We cannot ignore it. We cannot be afraid of it. We will see the benefits when Canada expands upon its reputation for providing quality nuclear services to clients around the world. We will see it when more nations of the world open their doors to our technologies thanks to the market penetration of Canadian nuclear technology. And we will see it in the contributions that future generations of scientists and engineers, working in the nuclear industry, will make to Canada's science and technology excellence.

The Government of Canada is looking forward to working with you to make sure that your industry remains one of the driving forces of Canadian science and technology. We will be your partner in ensuring that your industry -- and Canada as a whole -- can compete.

We are doing more than simply wishing we were more competitive -- we are planning to be more competitive. That is what the Prosperity Initiative is all about, and that is why I urge each and every one of you to get involved with the consultations. We have much to take pride in from your achievements. But every Canadian has a stake in ensuring a competitive, and thereby prosperous, future for the country. That is why it is so important for every Canadian to be involved in planning to meet the competitive and learning challenges we all face together.

Having watched the success of your industry over the last 40 years, I am confident that we have what it takes to meet those challenges. If we are to do so, we will not achieve it by the unco-ordinated actions of a few; we must depend on the commitment of and concerted action by every Canadian. That is why the Prosperity Initiative is so important for the future of Canada and therefore important for you.

I am convinced that if we work together now toward this common goal, we will be able to pass on a united, prosperous, caring country to the next generation.

Thank you.