

Speaking Notes
for
Denise Carpenter,
President
and CEO
Canadian Nuclear Association
At the
“Future of Neutron Scattering”
Panel Discussion
June 28, 2010

Good morning.

Thank you Dan. (Danial Wayner, V-P Physical Sciences, NRC).

As President and CEO of the Canadian Nuclear Association (the CNA) it is a pleasure for me to be a part of this panel discussion.

I am here representing a Canadian industry that we all know has a long history of being a world leader in material research. My remarks this morning will focus on how we need to maintain this reputation in Canada - and around the world.

THE INDUSTRY

Some of you will be familiar with some of the following information, but I would like to begin my Statement by sharing a few facts about our Association.

The CNA has some 95 members representing the entire spectrum of the nuclear industry – electricity producers, manufacturers, uranium mining and fuel processing, labour unions, engineering and universities.

This year marks a significant milestone for us. It was 50 years ago, in 1960, that the members of the Canadian nuclear industry created the Canadian Nuclear Association to promote the peaceful use of nuclear technology in Canada.

Our vision is to seize the opportunities being presented by the global nuclear renaissance to build and sustain a strong, vibrant and growing nuclear industry in Canada. And by achieving this, we will retain a strong Canadian nuclear presence around the world.

Globally there are 438 operating reactors, 54 under construction and over 450 planned or proposed. Our industry wants to be a global player and create economic wealth and thousands of high paying jobs for Canadians.

I believe that nuclear energy can power the dreams of tomorrow. Our industry has opportunities to provide benefits for Canada in areas of power, research, medicine, and climate change. For our international visitors in the room, let me illustrate a few reasons why.

First, the Canadian nuclear industry is large. Nuclear generates 15% of Canada's electricity, including 55% in Ontario. It is responsible for over 70,000 highly skilled and high paying direct and indirect jobs.

Canada, specifically Saskatchewan, is the world's second largest uranium producer with 20% of the world market.

We are a global leader in nuclear medical technologies. And we have research facilities across the country.

Nuclear is affordable.

With growing concerns about climate change and our environment, we need to remember that nuclear electricity is clean and non-emitting.

Nuclear can even be considered an enabler for renewable energy. No other base load electricity can compare when we look at those possibilities.

NUCLEAR RESEARCH

As impressive as the overall statistics are, we are all here today to discuss the benefits of nuclear that go well beyond electricity generation.

Nuclear in Canada is the basis for vital cancer-fighting medical technologies, diagnosis and treatment, medical sterilization and food irradiation, desalination of water - and other emerging technologies.

I joined the CNA late last year, and one of the best parts of my job is the constant learning about applications of nuclear energy.

For example, I was surprised to learn that the NRU reactor at Chalk River does much more than produce medical isotopes!

The NRU reactor is providing leading edge science to universities and private companies around the world in the area of material science – more specifically - neutron scattering.

This is a story that is too often untold. And the CNA wants to help tell this story.

For example, during a town hall meeting in Port Hope last week, I explained this research to the community. I wanted them to know that material science is affecting their daily lives.

I discussed how neutron beams are harnessed from the reactor core, so that scientists can observe at a molecular level the structure of any type of material.

This research is providing engineers with crucial information to develop safer, stronger materials that can be used in everything from - nuclear reactor components, to airplanes and bridges.

The NRU is also providing research possibilities for health and medical research. There are studies examining the quality of our food. Or those being conducted on membrane interactions, which could lead to information about cholesterol and heart disease - and more importantly, possible cures.

A NEW RESEARCH REACTOR

We want this research to continue in Canada. We want to see it grow and improve, just as it has over the last six decades.

The Canadian nuclear industry recognizes that our nation needs to invest in nuclear infrastructure to remain a world leader in materials research.

We need this infrastructure to continue building new knowledge and training opportunities for our youth, and to develop worldclass research in our universities.

All in all, research is the core of our industry and Canada's future.

A national investment in a new, world-class research reactor – to replace the capabilities of the aging NRU – would signal Canada's confidence in our ability to challenge the global competition in a nuclear renaissance.

A new research reactor would be a solid base upon which Canadian nuclear industries can build their businesses, maintaining safe, economic operation our fleet of nuclear power stations and developing our technology to participate in the emerging international marketplace.

The Canadian industry is ready and willing to bring innovative nuclear technologies and services to a world that is hungry for clean, sustainable, and reliable energy centuries to come.

But to do this we need a commitment from Governments and we need investments in nuclear research.

A commitment of resources **today** will help attract young people to pursue scientific and technical careers in Canada **tomorrow**. We want to keep our bright, young minds at home.

POWERING OUR FUTURE

The CNA recently unveiled a Growth Strategy to ensure Canada remains a global leader in nuclear technology, R&D, creates highly-skilled jobs in Canada, increases economic benefits for Canadians, and helps address the domestic and international challenges of climate change.

Investments in nuclear research and a new research reactor is a key part of our growth strategy.

We are optimistic about the future even in the face of uncertainty - for example – the prospective sale of AECL.

The Government of Canada has stated that AECL must be strengthened to allow Canada to fully participate in the nuclear industry's global expansion.

This change will also mean that the Chalk River laboratory would have an opportunity to renew itself and maintain its world-class reputation, while ensuring safe and reliable operations.

As the Government finalizes their process in the coming months, we support a system that will advance the industry and the hundreds of Canadian companies that are part of the CANDU supply chain to make it more competitive.

CONCLUSION

We're one of the few countries in the world that has a nuclear supply chain. With that opportunity also comes responsibility.

We need to maintain a strong backbone of R&D to run all pieces of this nuclear supply chain in Canada.

Material science research is the key component of this chain. And a new research reactor is **the key** to supporting these activities.

These activities will allow us to continue our cutting edge discoveries, attract the brightest minds, and most importantly maintain Canada's long history of being a world leader in nuclear research.

Thank you.